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PROGRESS REPORT

FOREST ADMINISTRATION

IN

COORG

FOR

1878-79.

By F. B. DICKINSON, Esquire,

ASSISTANT CONSERVATOR OF FORESTS,

WITH A REVIEW BY THE CHIEF COMMISSIONER

AND

ORDERS BY THE GOVERNMENT OF INDIA.

1879.

CALCUTTA:

PRINTED BY THE SUPERINTENDENT OF GOVERNMENT PRINTING,

8, HASTINGS STREET.

No. 808F., dated the 13th October 1879.

From—The Officiating Secy. to the Govt. of India, Home, Rev. and Agri. Dept.,

To—The Chief Commissioner of Coorg.

I AM directed to acknowledge the receipt of your Secretary's letter No. 575-184, dated the 1st ultimo, submitting the Progress Report of Forest Administration in Coorg for the year 1878-79; and to communicate the following observations and orders thereon.

2. Forest Administration in Coorg is governed by the Forest Rules of the 11th August 1871, made under the Government Forest Act VII of 1865. The proposal to make the Indian Forest Act VII of 1878 applicable to Coorg is mentioned in paragraph 4 of the Report, and in paragraph 3 of your Secretary's letter under reply. Before any further steps in this direction are taken, I am directed to request that a report be submitted, explaining why the present Forest Rules are insufficient, and stating specifically the advantages expected from the extension of Act VII of 1878 to Coorg.

3. The area of the Government Forests has remained unaltered at 295 square miles. The explanation of the large difference in the area of the Arkerenad forest, which in former reports was entered at 50, and is now shown as 5 square miles, is awaited. The topographical survey of these forests, the commencement of which by the Madras Revenue Survey Department was reported in 1874, has apparently not been completed, but it is understood that maps of some of the forests are now available. I am directed to request that when these maps are printed five copies of each be sent to the Superintendent of Forest Surveys, more copies being furnished afterwards to that officer in case he should require them. Your letter No. 186-6, dated the 28th May last, reported that the Coorg Survey party had been withdrawn. I am to request that a statement be submitted, showing which forests have been surveyed, what remains to be done in this respect, and what arrangements you propose to make for the survey of the remainder.

4. From paragraph 6 of the Report it is noticed that the demarcation of the ghât forests was carried on by Mr. King during the year under review. At your request it has since been decided to transfer Mr. King from Coorg to another province. The Governor General in Council trusts that the demarcation of the ghât forests will not be interrupted or retarded by the removal of that officer from Coorg, and that the report for the current year will give a satisfactory account of the progress made in that respect.

5. The attempts made to protect the forest against fire have been more successful than in any previous year, and it is satisfactory that 129,478 acres out of the total demarcated area of 189,166 acres were successfully protected during the year under review.

6. The scanty success which has hitherto attended the attempts made to cultivate sandalwood in Coorg is to be regretted. With reference to what was said in paragraph 7 of the letter from the Government of India in the Department of Revenue, Agriculture and Commerce, No. 470F., dated the 29th May last, communicating orders on the Annual Report of Forest Administration for 1877-78, I am directed to suggest that an intelligent subordinate officer from Coorg may, with the permission of the Madras Government, be deputed to spend some time at the sandalwood plantations established in that Presidency, in order to learn the practice there followed in the cultivation of this tree. What the Superintendent of Coorg states in paragraph 8 of his letter No. 247-124, dated the 11th ultimo, that sandalwood does not grow in dense forests, is well known, but the tree is commonly found in open jungles with brushwood. Such areas which produce the tree naturally exist in the north-eastern part of Coorg, and if they have not yet been included within the demarcated reserves, arrangements should be made to demarcate them.

7. The Assistant Conservator explains that in cutting timber the choice has hitherto fallen on middle-sized trees 8 or 9 feet in girth, which are estimated to be 80 to 120 years old, rather than on the older and larger trees, and he

now proposes to cut the latter in preference. This is a step in the right direction, and it is to be hoped that Mr. Dickinson will be able to overcome the difficulties of cutting up and utilizing timber of such large size.

8. The financial results have been less favourable than usual, chiefly on account of the small quantity of sandalwood brought to depôt, the arrangements in regard to which do not seem to have been successful during the year. The revenue realized and the expenditure incurred during the year were as follows:—

		Rs.	Rs.
Receipts			52,020
Charges ...	Conservancy and Works ...	14,671	
	Establishments	20,158	
			34,829
	Surplus ...		17,191

The average receipts and charges of the Forest Department in Coorg during the last 15 years have been—

	Receipts.	Charges.	Surplus.
	Rs.	Rs.	Rs.
Five years, 1864-65 to 1868-69 ...	78,921	12,706	66,215
Ditto, 1869-70 to 1873-74 ...	93,835	30,607	63,228
Ditto, 1874-75 to 1878-79 ...	78,887	36,021	42,866

The charges have increased, and the surplus has diminished, but the Governor General in Council trusts that, on the other hand, great and permanent advantages have been secured by the demarcation and improvement of the forests.

9. As observed by you, Mr. Dickinson's Report is clear and concise. The comparison of estimates and actuals given in paragraph 49 of the Report should be left out in future; it is a matter of purely temporary interest which need not have a place in the annual progress reports.

No. 809F.

Copy forwarded for information to the Superintendent of Forest Surveys with reference to paragraph 3.

Govt. Central Branch Press, Simla.—No. 570, H., R. & A. D.—20-10-79.—355.

Genl. No. 575.
Gen. 184

COORG CHIEF COMMISSIONER'S OFFICE.
Camp Mysore, 1st September 1879.

From

W. J. CUNINGHAM, ESQ.,
SECRETARY TO THE CHIEF COMMISSIONER
OF COORG.

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
HOME, REVENUE AND AGRICULTURAL DEPARTMENT,
SIMLA.

SIR,

I am directed by the Chief Commissioner to submit the Annual Report of the administration of Coorg Forests during 1878—79. The report has been prepared by the Assistant Conservator in charge and forwarded through the Superintendent of Coorg, whose letter is printed with the report. This procedure has been adopted, I am desired to say, because of the abolition of the office of Conservator. Captain van Someren left the Province in January 1879, since when the work of supervision and control of the Forest Department in Coorg has been divided between the Superintendent and the Chief Commissioner.

2. Mr. Dickinson is to be congratulated, Mr. Gordon thinks, for the perspicuity and terseness of his report which clearly shews that although from various causes the past year fell short financially of the expectations which had been formed of it, yet much has been done towards ensuring efficient protection and economical working of the Coorg Forests in the future.

3. The Forest Rules alluded to by the Assistant Conservator are under the consideration of the Chief Commissioner and it is expected that they will shortly be ready.

4. The suggested explanation of the great difference found in the estimated and measured area of Arkore does not appear to be the real one, as the Hatgatnad Forest in which Mr. Dickinson thinks part of Arkore has been measured is also found on survey to contain less than its estimated area. A finished and accurate forest map cannot be got ready by the Survey Department this year, but the Superintendent might have the State-forests marked approximately on the map of Coorg. This will be done and sent for the information of His Excellency in Council.

5. Demarcation of all forests in Coorg has made decided progress, and although the attempts to protect the forests from fire have not been uniformly successful, Mr. Gordon thinks the Department deserves commendation for the amount of success attained especially when it is recollected that labor, the ever present difficulty in Coorg, was more scarce than ever during the year. The area successfully protected was 129,478 acres out of a total of 138,061 acres in which protection was attempted. Almost the whole area of Dubare and Anekadu Forests in which protection had been tried during the previous year was successfully protected and that at a very much reduced cost.

6. In some respects the decreased yield of timber during the year is indicative of good work. It was partly owing to the scarcity of labor, a scarcity which was

increased by utilizing as far as possible the available labor upon the important work of fire-protection; but the small yield was also due to a wise determination to put an end to the prevailing system of cutting half-grown easily worked trees. There is much valuable timber in the forests which has hitherto been wasted because of its size and of the inaccessibility of the forests where it is situated. By opening roads, and supplying the Department with the improved carriage Mr. Dickinson has asked for this defect will be remedied as far as possible, and Mr. Gordon will take into consideration the advisability of setting up a saw mill worked by water-power.

7. The arrangement for working parts of the Urti and Kerti Forests alluded to in para 17 is considered the best for those inaccessible localities where departmental working can hardly be remunerative, and with the safeguards that have been devised to prevent abuse of the monopoly it is hoped that the system will work better than that of giving licenses to Moplahs.

8. The financial result of the year was a surplus of Rs. 17,191 against an estimate of Rs. 37,000, the falling off being principally due to the small yield from timber and unsatisfactory work done by the contractor for the collection of sandal-wood. The deputation of Mr. King to carry on the demarcation of ghat forests caused a slight excess of expenditure in pay and travelling allowance of superior officers, but on the whole the expenditure was well within the budget estimate.

9. With regard to the question of permanent boundary marks it will be seen that Mr. Dickinson does not report favorably upon the wooden posts on which he experimented, and that he recommends a combination of cairns and trenches; the subject, I am directed to state, is engaging the Chief Commissioner's attention, and Mr. Gordon hopes to be able to determine the precise form these boundary marks should take on the occasion of his coming visit to Coorg.

I have the honor to be
Sir,
Your most obedient Servant,

W. J. CUNINGHAM,
Secretary.

No. 247—124.

COORG SUPERINTENDENT'S OFFICE,

DATED 11th August 1879.

From

The Superintendent of Coorg.

To

The Secretary to the Chief Commissioner,

General Department.

SIR,

As directed in the Proceedings of the Chief Commissioner and order thereon dated 21st June 1879, No. 253—96, I have the honor to submit the Annual Report of the Coorg Forest Department for 1878—79.

2. With reference to para 2 of the Review by the Chief Commissioner on the Progress Report for 1877—78, a copy of letter from the Assistant Conservator dated 28th July 1879, No. 388—134, reporting what forests have been surveyed and giving the boundaries of other forests approximately, is appended and marked A.

Para 1 of letter to Superintendent, dated 12th July 1879, No. 317—103.

3. The Assistant Conservator explains that the Chembri Forest has not been included in the descriptive account of the forests given in his annual report, because there was nothing particular to mention except that "Kumri" cultivation had been suppressed in the forest.

Para 3 of letter from Assistant Conservator to Superintendent of Coorg, dated 12th July 1879, No. 317—103.

4. As the Conservator of Forests stated in para 27 of his Report for 1877—78 that no demarcation remained to be done, the Assistant Conservator was called on to explain regarding the demarcation shewn in the statement appended to para 22 of the enclosed report; the Assistant Conservator replies that the demarcation work done in the eastern forests was merely that of cutting demarcation lines along the Mysore-Coorg frontier, and that some 10 or 20 miles of such lines still remain to be cut.

Para 4 of letter from Assistant Conservator to Superintendent of Coorg, dated 21st July 1879, No. 357—122.

5. On the subject of the adoption of stout posts of teak or other durable wood to serve as boundary marks, the Assistant Conservator states that the results of the experiments were reported to the Conservator in September last, but they were not altogether successful. "Posts of various kinds were "painted over with linseed oil mixed with pulvarized char-"coal. After being in the ground 6 months, 6 kinds, *viz.*, *Artocarpus hirsuta*, "*Barsin*, *Lagerstrœmia*, *Pterocarpus marsupium*, *vitex alata* were in good condition; "the softer kinds had become to a certain extent rotten. Nothing further has "been done however towards marking the demarcation lines in such a manner. To "be effective such marks must be as conspicuous as possible, the result would be "that the elephants would make a point of pulling them up and breaking them. I "have known heavy slabs of stones over 6 feet long which had been fixed up-"right in the ground with only ⅓ of it above ground, wrenched out by elephants. "I am of opinion that cairns and trenches at intervals along the line would make "the best marks."

6. With regard to the case in which fire was maliciously put into the Anekadu Forest, the Assistant Conservator reports that unfortunately no evidence could be obtained, and it was presumed that the fire must have been intentionally lighted as it started in the middle of the forest and could not have come from outside.

Para 2 of letter from Assistant Conservator to Superintendent of Coorg, dated 12th July 1879, No. 317—103.

7. The anticipations of the Conservator with regard to the protection of the forests from fire have not been fully realized, and the whole of the Arkere Forest and small portions of the Dubare, Devamurchi and Mavukal Forests are reported to have been burned. There has however been great difficulty in procuring labor, and the Assistant Conservator states that diverting the men required to protect the Hatgatnad Forest from fire curtailed felling operations and affected the revenue from timber. On the whole, considering the difficulties the Assistant Conservator has had to contend against, he deserves credit for what he has accomplished.

8. On being called on to furnish the detailed information regarding the growing stock of sandalwood as required by the Government of India in para 10 of their letter No. 1270 F., dated 6th October 1877, the Assistant Conservator has replied that he is not yet able to give the information wanted. The data for preparing an estimate are now being collected and a special report will be made on the subject when ready. It may be noted that with a few exceptions sandalwood in Coorg does not grow in forests, but in the wooded grazing lands round villages, in the hedges round fields, and here and there in the fields themselves. In the forests it is as a rule rare.

Para 2 of letter from the Assistant Conservator to the Superintendent of Coorg, dated 21st July 1879, No. 357—122.

9. The yield of timber has been comparatively small and is accounted for partly by the scarcity of labor and the difficulty in procuring carriage, and partly by the felling being kept under stricter supervision.

10. With regard to the concluding para of the Chief Commissioner's Review on the Progress Report for 1877—78 suggesting the advisability of requiring applications for land for coffee cultivation to be sent in by a fixed date, the Assistant Conservator states that it is not desirable to lengthen the time taken before the purchase of land can be effected, that as a rule he has more leisure in the monsoon and has found it convenient to inspect lands applied for then, unless they are in the very rainy parts of the District.

Para 3 of letter from Assistant Conservator to Superintendent of Coorg, dated 21st July 1879, No. 357—122.

11. Adverting to para 31 of the Conservator's Report for 1877—78, the Assistant Conservator represents that a commencement has been made in framing working plans by regulating the fellings as described in paras 11 and 16 of his report on the Dubare and Nalkere Forests where the system of "Coupes" has been tried. Mr. Dickinson promises to note the results of the fellings carefully, and they will give data from which to fix working plans in the future. At present he submits "there are neither the data to work on "nor are working plans as yet much called for in Coorg where with regular fellings "and as long as the forests are not illtreated, there is a much larger supply than "demand. The regulated fellings now inaugurated if insisted on will insure the im-"provement of the forest, and will in time give sufficient data on which to found "good permanent working plans."

Para 4 of letter from the Assistant Conservator to the Superintendent of Coorg, dated 12th July 1879, No. 317—103.

12. With reference to the Proceedings of the Chief Commissioner, Department of Revenue, Agriculture and Commerce, and order thereon dated 1st July 1879, No. 511—R.-F.17, I have the honor to append copy of a letter to my address from the Superintendent, Madras Survey, dated 23rd July 1879, No. 159—E. G., marked B, intimating what has been done with regard to the forest maps and stating that the discrepancy in the area of the Arkere Forest will be cleared up after the monsoon when the boundary can be perambulated by the Head Surveyor in company with the Forest Ranger.

13. The demarcation of the Ghat forests has been separately reported on in letter from this Office dated 28th July 1879, No. 217—35.

14. On the subject of opening out the southern forests, Mr. Dickinson reports that the primary measures to be "taken are (1) the mak-"ing of somewhat better roads, (2) the regulating of "fellings; with regard to (1) there is at present only "one cart-track leading to Húnsúr, which taps the teak "zones of Hatgatnad and Nalkere Forests. It is how-"ever a mere track. It would be advisable to trace the road properly and bridge "the nullahs in a more permanent way than obtains at present. It has been my in-"tention to do this, but it has not been possible yet, as no labor could be spared for it. "Another road is required to tap the western portion of these forests. A third from "Karmad to Nagarhole (where there is forest bungalow) to facilitate inspection. "As regards (2) regulating the fellings, a beginning has already been made last "season. A felling of about 30 acres having been made near the Nagarhole bunga-"low in a portion of forest, where most of the middle-aged trees had already been "extracted, leaving young trees and over-mature trees; the latter will now all be "felled and care taken that the ground is re-stocked. A fresh piece will be treated "in the same manner during the current year. At the same time dry and fallen "trees are logged up in sections of the forests. By these means it is hoped to keep up "the yield, and when the Kurubas get used to them to increase it: while putting a "stop to the baneful system of felling out here and there the middle-aged trees "which has obtained heretofore, the felling of the large trees will necessitate the "employment of sawyers to saw the logs up into manageable pieces. In a late let-"ter to the address of the Secretary, I have also asked for leave to have some high "wheeled timber carts built for the extraction of these logs."

Para 1 of letter from Assistant Conservator to the Superintendent of Coorg, dated 21st July 1879, No. 357—122.

15. I would add that it seems advisable to consider the suggestions made by the Assistant Conservator in para 16 of his annual report regarding the establishment of a saw mill in the Nalkere Forest to be worked by water from the Nagarhole river, and about getting the large logs, which are now left to rot because they are too big to be moved, dragged to the mill by elephants.

16. The report on wooden posts has been made in para 5 above.

H. G. THOMSON,
Superintendent.

A.

From the Assistant Conservator of Forests, Coorg, To the Superintendent of Coorg, No. 388—134, dated 28th July 1879.

Superintendent's dockets No. 363 dated 24th, and 339 of the 16th instant.

With reference to the above, has the honor to inform you that all the Eastern forests have been surveyed, but maps of Arkere, Hatgat and Nalkere have not yet been received.

2. For the forests on the Western Ghats, there are four pretty well defined, and which have in some measure been explored, *viz.*, Urti, Kerti, and Arkomale in the south-west and Chembu in the north-west, to the west of the Sampaji valley.

3. The Urti forest is at present only about 3 or 4 square miles in extent, and is bounded—

On the north by Mr. Fowler's jungle and Mr. Rose's Kariamale.
On the south by the Barapole.
On the east by the Kamratu Dev-Kad.
On the west by the Periyambadi-Cannanore road.

4. It will be eventually enlarged considerably by the addition of the Fowler jungle and jungle given up by Mr. Rose.

5. The Kerti forest measures about 12 square miles; it is bounded on the north by Heggala village and the Fowler's jungle, south by Kalhole, east by the Periyambadi road and the Fowler jungle and on the west by the Kalhole. It will be enlarged by the addition of part of the Fowler jungle.

6. The Arkomale forest contains about 10 square miles including the cardamom forest. It is bounded on the north by the Pollemale and Airemale (Cardamom forests), south by the Udambe Hole, east by the Chaudi Kadda stream, west by the Udambe Hole.

7. The Chembu forests contain about 6 square miles in detached bits, the largest of which is only about 3 square miles. It is bounded on the north by the frontier and Chembu village, on the south by the Todikan range, on the east by Chembu and Dubadaka villages, and on the west by the Todikan range.

8. Besides the above when the demarcation of the Western Ghat is finished, there will be a fringe of forest on the eastern slopes, and the whole of the large forests on the western slopes which together will form very large reserves; but at present the undersigned is not prepared to give an estimate of their area.

F. B. DICKINSON,
Assistant Conservator of Forests, Coorg.

B.

From the Superintendent, Madras Survey, To the Superintendent of Coorg, No. 159 C. G., dated Madras, 23rd July 1879.

In reply to your docket No. 306, dated 10th instant, enquiring what progress has been made with regard to the forest maps of Coorg, I have the honor to inform you, for the information of Secretary to the Chief Commissioner, that a general forest map will have to be based on the taluk maps and that three of the six taluk maps are yet to be compiled from the field sketches, &c. It will therefore take some time to produce a general forest map showing the position of all forests, &c., as required in the Chief Commissioner's Proceedings No. 311—R. F. 117, dated 1st instant, referred to in your docket under reply.

2. As regards the discrepancy pointed out in the Proceedings above alluded to, in the area of the Arkere Forest, I have to say that the survey areas of both this and Hatgat Forests fall short in their estimated extent, and that therefore the only way of clearing up the discrepancy will be to perambulate the boundary with the Forest Ranger, and see if it is correctly demarcated.

3. I have therefore the honor to request you will be good enough before complying with my letter No. 118—C. G. of 30th May, to depute the Forest Ranger to accompany the Head Surveyor for the purpose of perambulating the boundary in order to ascertain whether the demarcation is correct or not.

On receipt of their joint report in detail, further actions if necessary can be taken in October next when the working season re-opens after the rains are over.

A. SCOTT, Lt.-Col., R. E.,
Superintendent, Madras Survey.

ASSISTANT CONSERVATOR'S REPORT.

Annual Report No. 271—83 *of the* 27*th June* 1879, *on the Management and Conservancy of the Coorg Forests for the financial year* 1878—79, *by* F. B. DICKINSON, ESQ., *Assistant Conservator.*

I have the honor to submit the Annual Report of the Coorg Forest Division for the year 1878—79.

I. SUMMARY OF ADMINISTRATION DURING THE YEAR.

2. The Division has been under my charge the whole of the year. Mr. King, Assistant Conservator of Forests, was sent in January to carry out the demarcation of the Ghat forests and has been employed on that work.

3. Mr. Muniapandra Muttanna having passed through the School of Engineering and Science at Bangalore, joined the Coorg Forest Department in September 1878 and has chiefly been employed in learning his work.

4. No new forest legislation has been introduced in Coorg. It has been proposed to make the new Forest Act applicable, but the necessary rules are not yet ready.

II. RESERVED FORESTS.

5. The areas of the Reserved forests are given in prescribed Form No. 45. No changes have been made this year in the actual areas. The estimated area of Nalkere Forest is given, as the correct area is not yet known. The very large difference between the surveyed and estimated area of Arkere arises from the Survey Department having included a large portion of Arkerenad Forest in the Hatgatnad Forest. The Survey Department has been addressed on the subject. For the present the two are given together.

6. The demarcation of the Ghat forests has been begun and is being carried on by Mr. King. It is intended to make an inner line on the eastern side of the ghats and an outer along the boundary of Malabar and Coorg. Nearly all within these lines will be Reserve forest, except a few jungles which have been given for coffee, which will be inserted in the map of the Reserve, and have their boundaries thus definitely fixed. An estimate of the probable cost will be made shortly.

7. "Kumri" cultivation in the Sampaji and adjoining villages has been stopped by the measures taken by the Superintendent.

8. The sale of licenses in the Urti, Kerti and Arkamale Forests realized Rs. 2,913—8—0, and everything was done that could be to stop cheating. Late in the season sanction was received to engage six extra guards and a Forester temporarily to look after these forests, and it is hoped that with this extra establishment a sufficient check will be kept on the men who fell.

9. Last year a short description of each of the State-forests was given in the Annual Report.

10. The following is a brief summary of points which have brought themselves to notice during the year under report, of the working and improvements carried on in each forest.

11. *Dubare.*—The chief point to be noticed is the springing up of bamboos both large, Hebbidaru (*B. arundinacea*), and small, Kiribidaru (*D. strictus*). The large seem to have died all over Coorg some 6 or 8 years ago, and are beginning to grow vigorously. The small have been seeding for two or three years back, and now there is in many parts of the forest a heavy crop of young ones coming up. Measures will be taken to dibble in teak, honne (*Pterocarpus marsupium*), bite, (*Dalbergia latifolia*) and other seeds in the portions where the seeding has not yet taken place, to prevent the Kiribidaru from taking up more than its legitimate share of the ground which it is so apt to do. Felling in this forest has been restricted to dry and fallen trees,

and two small fellings have been made, (for convenience called "Coupes") one of about 30 acres, and the other about 20 acres. These primary "Coupes" produce but little good timber, as most of the good caste trees have to be left standing for seed bearers, too few even then in places. It will consequently be necessary for some years to make large primary coupes, until the secondary coupes come to be made, when the seed bearers having served their purpose will be converted into timber.

It is intended to aid natural reproduction in these coupes by dibbling in teak, honne bíte and nandi seed.

Protection from fire has been more successful in this forest this year than last and would have been completely so, had the Forester in charge carried out the orders given to him. In addition to the fire lines round and through the forest, the open grass lands, of which there are several, were burnt before the forest itself was dry enough to burn. It was the omission to burn one of these which caused the only fire that occurred. By this fire about ·69 square miles were burnt out of 17·75 square miles. The inspection lodge begun last year was completed, and much facilitates the working of the forest. A road has also been traced to Maldare, where another inspection lodge is being built; both the road and the lodge will be finished during the current year.

12. *Devamurchi*,—21·70 square miles.—This forest has been more completely examined this year. The eastern portion occupying the higher parts of the frontier range of hills is composed of bamboo surmounted here and there by forest trees. In the western portion the tree *peuplement* is more complete and bamboos scarcer, but the forest is generally poor, not so good as Dubare, and trees of large size are scarce. With conservancy it is hoped it will improve. Honne, bíte, matti, with teak here and there, are the usual constituents of the forests with a proportion of about one-half of inferior kinds.

No fellings have been carried on; there being little demand for timber as yet in the neighbourhood, a few bamboos only have been sold from it.

Fire conservancy has been inaugurated with a good measure of success, the whole of the northern portion was protected, and a bit of about ·18 square miles was burnt in the southern by a fire from Mavukal Forest, which ought to have been kept out by the Forester in charge of the latter forest.

The building of a bungalow has been commenced at Maldare on the outskirts of the forest to the north-west. It is also intended to connect Maldare and Tittimatti by a road about 10 miles long.

13. *Mavukal*,—13 square miles.—The northern and western portions of this forest have been more fully examined this year. The northern portion Handigundibetta is something similar to Devamurchi, bamboos being very common in the east and becoming less so towards the west; the forest contains a good proportion of good trees, but of middling girth and height. The western portion of the Reserve Torikatte, Keshinnakere and Hosalli is composed of a better caste of forest containing a good quantity of teak, honne, &c., but unfortunately like the portion called Ballumani, remarked on in last year's report, has been much overworked.

Fire conservancy was commenced this year, but owing to scarcity of labor and bad management on the part of the Forester in charge, the result was a failure to a great extent, and owing to the northern fire line not having been completed, fire extended to the Devamurchi Reserve as above stated. Only about 8·74 square miles out of the 13 square miles of this forest was saved.

14. *Arkere* was visited on two or three occasions during the year under report. The eastern portion is somewhat poor forest composed of teak, matti, dindiga, about 60′ high, the larger trees attaining 5′ to 6′ in girth, bamboos usually sparse and is intersected with open grass voids. It would appear to have been heavily worked in former days probably by Mysore people. The western half contains both higher and larger trees, honne, bíte, matti with teak sparsely scattered, and the *peuplement* is generally fairly complete. There is at present but little local demand for timber, and it is found difficult to get carts to transport the timber to either the Tittimatti or the Húnsúr Depôts. The working of the portion of it called Mattigadu has however proceeded during the year. 498 logs measuring 7,192 cubic feet have been taken thence to Húnsúr

Attempts have been made made to protect it from fire for the first time, but th ewhole forest was burnt. The Reserve is under the charge of the same Forester as Mavukal with which he was equally unsuccessful. But he has a great difficulty to contend with in the proximity of the "Bamboo" district, in which are situated so many coffee plantations absorbing all the available labor. Every effort will be made next season to protect both this and Mavukal from fire.

15. *Hatgatnad.*—A mistake was made in the survey of these two Reserves (Hatgatnad and Arkerenad), a large bit of the latter having been included in the former. The Survey Department has been addressed on the subject. This accounts for the smallness of Arkere compared with the estimated area noted by the Conservator in the Annual Report for 1877—78.

The western half of this forest is dense containing much good honne, bite, nandi, &c., but no teak; but there is a zone of good teak running from north to south in the eastern half, thinning off to poor dry forest of dindiga, stunted teak, &c., on the eastern boundary. No attempts were made to protect the forest from fire this season owing to the Forester's time being taken up with the Barenad plantation work and to shortness of labor, but it is intended to commence protective operations next season. A bungalow or rather an inspection hut is in course of building on the Armane bine on the outskirts of this forest, which will much facilitate the inspection of this Reserve, Arkerenad and Nalkere Reserves.

16. *Nalkere Forest.*—The detailed survey of this was finished during the year by the Coorg Revenue Survey, but its correct area is not yet known, nor has the map been received. To the description given of it in last year's report, it may be added that like Hatgatnad there is a zone of good forest on the west containing honne, bite, nandi, &c., but no teak, a broad zone in the middle containing much very good teak, honne bite, matti, &c., and then thinning off towards the east into dry stunted forest of dindiga (*Canocarpus latifolia*), and a good lot of stunted teak from which however a fair supply of timber might be drawn.

Fire conservancy was inaugurated this year (1878—79) with a good measure of success, and with a little more energy on the part of the Forester in charge would have been quite successful. As it was he did not complete his northern line, that separating it from Hatgatnad, in time, so that a fire which burnt the dry eastern portion of that Reserve extended to the north-eastern portion of this forest and burnt some four square miles in that corner before it could be extinguished.

The protective operations took up so much of the limited supply of labor, that felling operations were somewhat curtailed, which it will be observed reacted on the revenue from timber. In felling hitherto the choice has generally fallen on middling sized trees of 8′ or 9′ in girth which are comparatively young (about from 80 to 120 years old) rather than on the old mature trees, as the latter when logged up give logs too bulky and heavy to transport without the use of the saw. Attempts have been made to get sawyers to go out there, but they can only be got to go at extravagant rates. It is a question whether it would not pay to establish a saw mill at Nagarhole, where there is always a supply of running water to work a water wheel or possibly a turbine. This stream is in the very heart of the best teak forest, and the logs could be dragged to the saw mill by elephants. By these means a large quantity of timber which now is burnt or rots by degrees would be turned to account.

The inspection hut which was commenced in 1877—78 was finished. A coupe of 30 acres was marked out near the hut for the extraction of old over-mature trees, the middling sized trees having been felled out. Natural reproduction therein will be aided by dibbling in seeds. The hebbidaru (*B. arundinacea*) in these forests are pushing up fast now, especially in wet places, and will in a few years again become serviceable.

17. *Urti and Kerti.*—These forests still remain undemarcated; but now that the demarcation of all the Western Ghat forests in Coorg has been set on foot, they will in their turn be demarcated. With them may be included the Arkomale Jungle to the north-west of Kertimale, draining into a floatable stream called the Udamli which joins the Irrati, a stream formed by the confluence of 3 or 4 large torrents at the bottom of the Periyambadi Ghat.

Several Moplas have come forward during the year under report, and taken licenses to fell timber in the Urti and Arkomale Jungles by which a profit of

Rs. 2,913-8-0 was made. Owing to the fact that only the very large trees are chosen by the purchasers, no system of selling trees previously marked to be felled can be established. And although the license system is objectionable in many ways, it is the only one that is practicable for the present in these dense out-of-the-way unhealthy forests. The only way to avert its evils to a certain extent is to watch the timber felled and sent away.

Negotiations have been going on for some time with a Mr. Tod, who wishes to lease from the Coorg Government the sole right of felling on certain conditions in Urti and Kerti Forests for a term of years, which have ended in his getting the lease for 1879-80 and the possibility of an extended lease.

18. *Anekadu.*—The same policy as last year of giving rest to this forest was followed during the year under report. The felling of green fuel for the Distillery at Fraserpet, which bringing in as it did but little revenue to the Department, but doing a most disproportionate amount of harm to the forest, was put a stop to, and the supply of firewood made from dry and fallen trees, and trees felled on fire lines.

A small amount of timber and bamboos has also been brought out for the Mercara Depôt.

Except a portion of the northern half of the forest in which fire was maliciously put, this Reserve was protected. This northern half is always difficult to protect, being so dry and surrounded by villages.

19. *Ganagur.*—No remarks. The forest was successfully protected from fire, but no further operations were carried on.

20. *Yedavanad* was protected from fire. A bit of about ·68 square miles only was burnt, and the fire promptly extinguished.

21. The other three small detached bits in Yelsavirshime, *viz.*, Alur, Mensinabetta and Kattepura, were protected from fire.

II.—2. PROTECTION AND IMPROVEMENT.

22. *Demarcation.*—The demarcation of the Ghat forests was commenced late in the season by Mr. King, and is now progressing, and it is hoped a good account will be given of this work in the next Annual Report. All the demarcation lines round protected forests have been cleared in the course of making the fire traces. Also some new lines have been made along the frontier in connection with fire traces. Mr. King arrived in Coorg in January 1879 to carry on the demarcation of the forests on the Western Ghats. A copy of his letter reporting the progress of the work will be found in the Appendix, from which it will be seen that about 25 miles of the inner line has been cut, 9 miles to a breadth of 9 feet, and about 16 miles to a breadth of 3 feet.

The work done under this head is summarized in the accompanying statement:—

Statement shewing the Work done under head VII, Demarcation, during the year 1878—79.

Names of Forests.	Cutting lines.					Clearing lines.					Total			Remarks.
	Miles.	Furlongs.	Cost.			Miles.	Furlongs.	Cost						
Dubare	...	...	...	...	...	3	3	11	5	0				
Devamurchi	4	6	76	0	0	9	6	83	10	8				
Mavukal	...	...	...	...	...	11	6	134	4	0				
Arkerenad	9	6	145	11	8	...	...	...	...	...				
Hatgatnad	...	...	...	..	..	1	4	28	0	0				
Nalkere	...	...	...	..	...	39	6	297	2	8				
Anekadu	...	...	...	...	...	16	7	57	4	0				
Ganagur	...	...	...	...	...	35	7	151	12	0				
Yedavanad	...	...	..	...	...	13	6	52	13	0				
Total.....	14	4	221	11	8	132	5	816	3	4	1,037	15	0	
Ghat Forest—Balliattri Forest ...	4	...	106	12	8	...	...	...	...	...	106	12	8	
Grand Total.....	18	4	328	8	4	132	5	816	3	4	1,144	11	8	

23. *Surveys.*—The Coorg Revenue Survey made the detailed survey of Nalkere and Hatgatnad Reserves.

The maps of Devamurchi and a portion of Arkere Forests have lately been received from the Madras Survey Office.

24. *Protection of the Forests from Fire.*—Besides the three forests partially protected in the season of 1878, Devamurchi, Mavukal, Arkere, Nalkere, Yedavanad and Ganagur were taken in hand this year, with a good measure of success except in the case of Mavukal and Arkere. The means of protection were the same as last year, *i. e.*, isolating the forests by surrounding them with fire traces, and dividing them up by other fire traces, and also by placing fire guards to go round the lines, give notice of any fire breaking out, collect coolies together, and put it out. The men were promised a reward at the end of the fire season at their discharge if they did their duty well. Many fires were discovered, and promptly put out by these men.

The remaining deciduous forest, Hatgatnad, will be protected next season. Now that the subordinates are getting used to the work, operations will be carried on with more success.

25. The results are given in the accompanying statement.

Statement shewing the Area of State-forests protected from fire.

Forests	Area attempted to protect.	Area protected.	Cost per square mile.			Cost per square mile last year.			Remarks.
Dubare	11,363	10,916	30	11	7	51	6	6	
Anekadu	11,508	10,980	18	2	3	66	14	5	
Devamurchi	11,266	11,169	29	5	11	...	...	...	
Karmad Teak Plantation	229	229	269	11	1	...	...	..	
Yedavanad	7,284	6,844	47	4	3	...	...	..	
Ganagur	10,188	10,184	11	13	11	...	...	–	
Nalkere	75,000	73,673	3	13	0	...	...		
Mavukal	8,188	5,458	31	14	3	...	...	...	
Gangavara Sandal Reserve	25	25	...	...	...	...	...	...	
Arkere	2,990	...	35	1	0	...	...	..	
Total.....	138,061	129,478	...	.	...	...	...	...	

26. In carrying out these protective works and in arranging measures for keeping out fire, the smallness of establishment is still much felt. Proposals have been made during the year for its increase, but no reply has been received. Until each tract of forest is under its special Forester who is responsible for the work going on in it, and for keeping out fire, protection from fire will never be certain of success.

27. In North Coorg one of the great hinderances to protection from fire is the mischief of cattle boys. It has been proposed that where herdsmen are necessary, they should be properly registered men. Happily in most parts of Coorg the cattle being allowed to roam by themselves in the forest, there is no danger from grazing.

28. *Plantations.*—The work done in plantations with cost of the year's operations, &c., are given in Statement No. 46.

29. *Karmad Teak Plantation.*—Work was limited to weeding. All the younger portions of the plantation were weeded. In some of them the weeds were very high, but have now been got under. The plantation is doing fairly well, but the plants have not made much growth during the last two years, partly, perhaps, on account of the scanty rains. The largest of them are about 2′ in girth and 35′ high, being 10 years old. But the trees of this size even in the oldest portion are in the minority, and the growth is generally irregular all over the plantation. These results may be partially due to the plantation being a good deal to the westward of the teak zone mentioned in paras 15 and 16, and it is possible it does not find itself under the conditions it prefers. Under these circumstances it seems inadvisable to enlarge the plantation here. Sufficient has been planted to judge how teak will grow here. Attention now can be, with more profit, given to the formation of coupes in the teak zone.

30 It was still found difficult to keep sufficient labor on the plantation, and none could be spared for other works in the forest such as fire conservancy. It is hoped however that it will be possible to carry on both the plantation and other works this year.

31. The expenditure on this plantation was as follows :—

	Rs.	As.	P.
For weeding 142 acres	1,148	14	0
,, do in beds	10	6	0
,, making patches	8	12	0
,, collection of seeds	10	8	0
,, sowing seeds	7	6	0
,, pitting and planting seedlings	12	12	0
,, clearing weeds round plants	4	8	0
,, preparing beds	17	4	0
,, digging a well	5	4	0
,, repair of tools	0	9	0
,, sundry	26	8	0
,, protection from fire	* 96	8	0
,, establishment	26	0	0
Total....	1,375	3	0

* Rs. 96—8—0 charged under head VIII c.

32. *Fines from Pound in the Plantation.*—Nil.

33. *Kutam pole Teak Plantation.* — No work has been done in this plantation and no establishment kept up. It is intended to free the plants from creepers after the rains.

34. *Gangavara Sandal Plantation.*—Last year's bit and the old plantation were supplied up partly with nursery plants and partly by dibbling in seed. The latter proved the more successful. Although the nursery plants were put out with much care under my personal supervision, the result was not successful. At the time of planting there was very heavy rain, which however was succeeded immediately by a fortnight's sunny hot weather, which was apparently one cause of failure, but the chief cause seems to be the extreme tenderness of the roots of this plant. Even the plants reared in baskets when put out with their baskets did not succeed well, but this must have been owing to mismanagement; probably the plants were too much shaken in the operation.

35. Ten acres of new ground were sown up in patches, only 20 per cent germinating, owing to the seed being bad, my orders regarding the collection of seed not having been properly carried out by Ranger Atchanna; of these about ½ are doing well.

36. The shade over the old plants of the 1st planting was thinned. An experiment was also made in sowing seeds, and rearing the plants in bamboo pots, but although some succeeded, with the majority the pots did not appear to rot soon enough, so that there was after a time no room for the roots to expand on which the plant faded and died.

37. A good deal of damage to the plants is done by cattle breaking through the hedge. But lately permission has been accorded to have a pound on the plantation, which it is hoped will keep them out.

38. The expenditure on the plantation is classified as follows :—

	Rs.	As.	P
For clearing weeds	111	13	0
,, making patches, pits and sowing seeds ..	131	12	0
,, collection of seeds	56	10	8
,, making beds	9	10	8
,, manuring	2	8	8
,, watering	55	2	0
,, fencing and repairing fence	27	15	4
,, trenching	49	5	0
,, sundry	53	3	8
,, establishment	322	6	7
Total....	820	7	7

39. *Roads and Bridges.*—A new road was commenced from the Dubare hut to Maldare, and a portion of it has been cut, and would have been completed had there been sufficient labor. A trace is also being made from the hut to join the bandy track to Fraserpet.

Repairs to the following cart tracks were made :—

	Rs.	As.	P.
Karmad to Ballahar Road repair	1	8	0
Repair of Palpare bridge	5	8	0
„ of road and bridge from Valambolli to Nagarhole..	28	12	0
Fraserpet-Dubare road	3	0	0
Dubare-Maldare do	40	0	0
Kutampole-Arkomale road	5	0	0
	83	12	0

40. *Buildings.*—The inspection huts at Dubare and Nagarhole have been completed. The expenditure incurred on the former with its out-houses was Rs. 378—15—8, and that of the latter Rs. 294—4—0.

41. Two new huts were begun. One at Maldare on the outskirts of Devamurchi and on the south of Dubare Forest. But owing to the labor having been taken up by fire lines, it is not yet near completion. When finished it will be very useful, especially when connected with the Dubare hut by a road, and with Tittimatti by another direct road which it is intended to trace through Devamurchi and Mavukal Forests.

The other hut at Armane báne near the Arkere and Hatgatnad Forests will be a most useful camp, from which to inspect work in those forests including Karmad. The work has been dragging on very slowly at this hut owing to the laziness of the Forester in charge.

42. Foresters' huts have also been built at Maldare and Kutampole, and the following expenditure incurred on them :—

	Rs.	As.	P.
Maldare Cutcherry	31	2	2
Kutampole do	41	8	0
	72	10	2

II—3. YIELD AND WORKING.

43. *Timber.*—The yield of the forests in timber and the revenue derived therefrom, and from sandalwood collected in the Province are given in the prescribed statements.

44. The yield in timber is much below the average. This is partly because the old mode of felling, *i. e.*, of allowing the Kurubars to fell whatever they wished has been put a stop to, and it has been found somewhat difficult to make them fell and prepare just what they are ordered to do. Partly also because the operations for the protection of the forests from fire took up so much of the time and attention of the Foresters and of their available labor that the felling work was in a measure neglected.

45. But the small quantity brought to depôt is chiefly owing to difficulties of transport, there being so many competitors in Coorg for the transport of coffee and other goods, and a very small local supply of carts and bullocks. The contractors too are very little to be depended on. It has always been the custom to give contracts to bring in timber to the depôts, but this year they have worked very unsatisfactorily, being tempted I suspect by higher prices to give their carts for other purposes. It is a question for future consideration whether it will not pay to engage carts and bullocks by the month, and keep them always employed in bringing out materials to depôt.

The total cost of extraction of timber was Rs. 1,356, and the revenue derived therefrom Rs. 4,276.

46. *Sandalwood.*—Rs. 1,380—4—3 was spent on the collection of sandalwood. The contractor who undertook the collection greatly disappointed me, not bringing one-half of what he contracted for, which accounts for the small receipts under sandalwood. The average selling rates were Rs. 591—9—4 per ton for *good and Rs. 209 for inferior wood. These compare favorably with former years, there being a greater proportion of the higher classes.

47. The timber from all the forests was either from dry and fallen trees, or the produce of reproduction fellings, which are made with the combined object of getting a supply of timber and re-stocking the land.

48. *Firewood.*—The supply of firewood to the Distillery at Frasepet was made from dry wood scattered about the forests of Anekadu and Attur and from trees cut on the fire lines. Owing to the greater difficulty of bringing such wood in to the old plan of cutting small trees at the nearest point, the price of collection has been raised from 7 to 8 annas, and the selling rate from 10 to 11 annas per cart-load of 20 maunds.

II—4. FINANCIAL RESULTS

49.

Receipts.	Estimates for 1878—79.	Actuals for 1878—79.
Receipts.		
I—*a.* Timber	11,800	4,275
b. Firewood and charcoal ...	1,300	1,498
c. Bamboos	2,100	753
d. Sandalwood	32,000	14,342
e. Grass and other minor produce	...	...
II—*a.* Timber	500	3,109
b. Firewood and charcoal ...	...	...
c. Bamboos	200	245
d. Grazing and fodder grass ...	...	53
e. Other minor produce ...	22,000	18,903
III—Confiscated timber ...	100	802
V—*a.* Fines and forfeitures ...	...	13
b. Refunds	...	92
c. Other sources... ...	10,000	7,934
Total Receipts.....	80,000	52,019
Deduct Expenditure.....	43,000	34,828
Cash Surplus.....	37,000	17,191

Disbursements.	Estimates.	Actuals.
A. Conservancy and Works.		
I—*a.* Timber	7,100	3,681
b. Firewood and charcoal ..	1,000	1,254
c. Bamboos	1,750	494
d. Sandalwood	3,200	1,380
VI—*c.* Plant, tools and instruments	500	405
VII—*a.* Roads and Bridges ..	900	84
b. Buildings	800	780
VIII—*a.* Demarcation	2,300	1,145
c. Surveys	500	...
d. Plantations	2,500	2,111
e. Protection from fire ...	2,400	3,233
IX—*b. c.* Law and other charges ...	50	103
Total A, Conservancy and Works...	23,000	14,670
B. Establishment.		
I—*b.* Superior Officers ...	5,400	5,908
c. Subordinate Forest Depôt Establishment	8,532	7,748
d. Office Establishment ...	2,052	2,034
II—Travelling allowances—		
a. Conservator	600	...
b. Superior Officers ...	1,750	2,144
c. Subordinate Forest and Depôt Establishments ...	550	834
d. Office Establishment ..	340	300
III—*a.* Stationery	100	145
b. Carriage of Tents, &c. ...	400	333
c. Rents, Rates, &c. ...	...	...
d. e. Official Postage, and sundries.	276	712
Total B. Establishment.....	20,000	20,158
Total A, Conservancy and Works ...	23,000	14,670
Grand Total.....	43,000	34,828

* Including roots.

The financial results are now summarized as follows:—

		Rs.
Realizations		52,019
DEDUCT—		
Amount realized on account of previous year ..		15,783
Balance....		36,236
ADD—		
Outstandings at close of year..		29,641
		65,877
Disbursements	34,009	
Deduct on account of transactions of former years ..	129	
	34,828	
Add, due for transactions of year under review, but not disbursed	0	
	34,828	
Real cost of year's transactions	34,828	
Value of year's transactions		65,877
Cost of year's transactions		34,828
Balance Rs. ..		31,049
DEDUCT—		
Difference between value of stock at commencement and close of the year		1,776
Net Results of the year....		29,273

The cash surplus was Rs. 17,191.

The decrease of revenue was chiefly owing firstly, to a small demand of timber and bamboos; 2ndly, to short collection and sale of sandalwood owing to the contractor not working well; 3rdly, short receipts under heads cardamoms and sale of timber on coffee jungles than that of those estimated.

A sum of Rs. 1,100 was transferred from A. "Conservancy and Works" to "B. Establishment" in the budget grant for 1878—79, on account of pay and travelling allowances of Mr. Muttanna, Probationer, *vide* Government of India order No. 37, dated 15th January 1879.

III. UNRESERVED OR DISTRICT FORESTS.

50. *Applications for Coffee, &c.*—During the year 49 applications for land for coffee cultivation and other purposes, were sent to the Assistant Conservator for report, which with the 69 pending from 1877—78 makes a total of 118. Of these 102 were disposed of.

51. *Free Grant.*—During the year the following free grant of timber and bamboos was sanctioned by the Chief Commissioner:—

One cart-load of wood and 1 of bamboos to one Vakkaligar Ningegauda of Avaradolu village in Kodli hobli; see Chief Commissioner's Proceedings No. 367—50 of the 21st August 1878, and the same quantity of wood and bamboos to one Nanjappa Shetti of Bittaganahalli village in Kodli hobli of the Yelsavirshima Taluk, see Chief Commissioner's Proceedings No. 478—66, dated 10th October 1878, for the re-construction of their houses destroyed by fire.

IV. GENERAL REMARKS.

52. *Working of Mattigod.*—The extraction of timber from the Mattigod Forest in satisfaction of a decree passed in the Court of the Superintendent of Coorg in favor of Húnsúr Basvaiya was continued during the year. Five hundred and ninety-four logs were prepared, and 498 logs carted to depôt.

The time for satisfaction of the decree ended in November, but it was found impossible to finish the work before then. There are still 2,596 trees in the forest to be felled and prepared.

53. *Capture of wild Elephants.*—Attempts were made to catch elephants in some of the forests, chiefly in order to maintain amongst them a wholesome fear of man, as they had in a few instances become troublesome by hanging about parties of coolies when working. But this was desisted in. It was found that it took up the subordinates' time and hindered other work. Also after catching some elephants in Dubare Forest in June, on making the usual application to Hunsur for the aid of the Commissariat elephants, it was discovered that orders had just been received by the Commissariat Officer to refuse such applications. In consequence of this and the long delay in getting other elephants from Mysore, the captures sickened and died from exposure and want of proper care being taken of them. Another elephant which was caught in Arkere died from the wounds it received in tumbling into the pit. So that out of four captures, only one, a small one, was eventually sold. There was thus a large expenditure and a small return. If tame elephants were available with a proper establishment, it is possible a profit might be drawn from catching elephants in pits, but not without. Under late orders the receipts and expenditure on elephants have been transferred to the Revenue Department, so that the results of these transactions have not been shewn in the accounts of this Department.

54. *Pithecolobium Saman Plants.*—The Pithecolobium Saman seeds given to the Secretary of the Coorg Planters' Association are reported to be doing well. Copies of letters from the gentlemen to whom they were distributed are appended.

55. *Mr. Muttanna.*—Mr. M. Muttanna, Probationer in the Department, has been employed in looking after fire lines, and getting a knowledge of the forests, regarding which he has lately sent in an intelligent descriptive report. He will, I hope, prove himself very useful and become a good Forest Officer. In accordance with the Government of India order No. 37 F., dated the 15th January 1879, the pay and allowance of Mr. Muttanna was charged to head B.-I.-*c.* instead of head B.-I.-*b.* "Superior Officers."

56. *Subordinate Establishment.*—The subordinate establishment has worked well with a few exceptions. Ranger Matetti Atchanna was dismissed owing to his having sent in false returns of bamboos felled in the forest. Ranger Boppanna was in bad health in the beginning of the year, but when he rejoined from leave on 8th November 1878, he was transferred to North Coorg, and has done good work there in getting his establishment into better order, his predecessor Atchanna having allowed things to become very slack. Kongeti Madaiya for some years a Forester in the Department, was promoted to Ranger in Atchanna's place, and posted to South Coorg. He will, I hope, justify the selection. P. Somaiya for some years Sandal Koti Daroga, was suspended from his post for carelessness, and as it was not thought advisable to reinstate him as Sandal Koti Daroga, that post was given to Bittiandra Appachu, the Office Munshi, who has worked well in it.

57. *Office Establishment.*—My office establishment has worked satisfactorily. In spite of many new forms of accounts which have been introduced, which entail extra work and a good deal of trouble to get used to, my Head Writer Shama Rao has satisfactorily mastered them, and has kept the work of the office well up to date In sending up the last sanctioned scale of establishment in December last, *vide* No. 861—405, dated 6th December 1878, I recommended that both my Head and 2nd Writers should receive a biennial increase to their pay up to a limit of Rs. 70 and 50 respectively. It is hoped that this proposal may receive favorable consideration.

F. B. DICKINSON,

Assistant Conservator of Forests, Coorg.

APPENDICES.

From W. KING, Esq., Assistant Conservator of Forests, To the Assistant Conservator of Forests, Coorg, No. 42, dated 8th June 1879.

I have the honor to inform you that I am proceeding on 3 months' leave, and to state that the line of demarcation has been carried round the eastern side of the ghats to a distance of about 25 miles, 9 of which are cut to the breadth of 9 feet and measured, the remaining 16 miles I had not time to measure too to have widened, it is 3 feet and will be made into a 9 foot line after the rains. The difficulty of getting coolies to work or men getting the owners of land to shew their boundaries retarded me much. I commenced the demarcation near the Nallanad Palace and carried it round to the confines of Tavunad with the exception of 3 miles chiefly grass land. It is my intention to draw out and submit a rough sketch map shewing the line of demarcation, together with the villages, hills and principal streams inside or close to the line and also those coffee gardens which are included within it to avoid the expense of running the line round them.

It is my intention to complete this line after the rains and then bring it round the western side.

One portion of forest land I thought it advisable to reserve; it is at present given out for coffee cultivation, and I have addressed the Superintendent on the subject.

There are large tracts of land given out as "Báne," which in my opinion should be retaken by Government, the resumption of which would not inflict much loss on the holders as the coffee in most instances receive no kind of cultivation, and is in anything but a thriving state.

W. KING,
Assistant Conservator of Forests.

Copies of letters to whom the Pithecolobium Saman seeds were distributed.

From CHARLES SPEECHLY, Esq., Balthemale Estate, Mercara, To the Honorary Secretary, Coorg Planters' Association, Mercara, dated 22nd March 1879.

Your favor of 18th instant, copy of Forest Conservator's letter, to hand.

I received from the Honorary Secretary, your predecessor, 47 seeds of the Pithecolobium Saman which I planted out in nursery baskets filled with simple soil, a seed in each basket. Only 20 seeds came up, the earliest was shewing above ground 12 days after planting, the residue came up irregularly during the following 14 days. I have now all these alive and flourishing, the larger ones steady looking plants 6 and 6½ inches in height.

CHARLES SPEECHLY.

From JAMES CHISHOLM, Esq., Fair Lands, To the Honorary Secretary, Coorg Planters' Association, Mercara, dated 24th March 1879.

On 23rd December last, I received 100 seeds of the Pithecolobium Saman, I distributed 30 amongst neighbours and put out the rest in nursery beds. In 6 weeks they began to appear above ground. On the 19th February 19 had germinated, and up to date 33, the largest being about 7 inches high.

JAMES CHISHOLM.

Form No. 45.

FOREST DEPARTMENT, COORG DIVISION.

Area of Reserved and Unreserved Forests in Coorg for 1878—79.

Division or Range.	Name of Forest.	Area on 1st April 1878.		Additions during the year.		Excluded or transferred to other heads.		Total on 31st March 1879.		Area of unreserved forests.	Number and Date of Notification of Additions and Transfers.	Remarks.
		Square Miles.	Acres.	Square Miles.	Acres.	Square Miles.	Acres.	Square Miles.	Acres			
	Dubare	18	11,363	...	...	...	...	18	11,363	..	...	
	Devamurchi	18	11,286	...	...	...	...	18	11,286	..	...	
	Mavukal	13	8,188	...	...	...	...	13	8,188	..	...	
	Arkerenad	5	2,990	...	...	...	...	5	2,990	..	...	
	Hatgatnad	68	43,514	...	...	...	...	68	43,514	..	...	
	Nalkere	117	75,000	...	...	...	...	117	75,000	..	...	
	Urti and Kerti	Not estimated.										
	Chembu and Karmad	10	6,400	...	...	...	...	10	6,400	..	...	
	Anekadu	17	11,508	...	...	...	...	17	11,508	..	...	
	Ganagur	16	10,188	...	...	...	...	16	10,188	..	...	
	Yedavanad	12	7,869	...	...	...	...	12	7,869	..	...	
	Katipur in North Coorg ...	1	585	...	...	...	...	1	585	..	...	
	Sandal Koti	...	275	...	...	...	...	...	275	...	...	
	Total.....	295	1,89,166	...	...	...	...	295	1,89,166	...	...	

Form No. 46.

Area of Plantations, 1878—79.

Division.	Name of Plantation.	On 1st April 1878.				During 1878—79.				On 31st March 1879.				Remarks.
		Area.	Total Cost.			Area.	Total Cost.			Area.	Total Cost.			
Coorg Division	Karmad	229	17,905	0	0	...	1,279	0	0	229	19,184	0	0	
	Kutampole	152	7,234	0	0	...	12	0	0	152	7,246	0	0	
	Gangavara, Sandal	15	1,659	0	0	10	820	0	0	25	2,479	0	0	
	Total...	396	26,798	0	0	10	2,111	0	0	406	28,909	0	0	

Form No. 47.

FOREST DEPARTMENT, COORG DIVISION

Area of Forest Tracts protected from Fire during the dry season of 1878—79.

Division.	Forest Tracts.	Up to 30th June 1878.				During dry season of 1878—79.						Total Cost up to 31st May 1879.			Year when protection commenced.	Remarks.
		Area actually protected.	Total Cost.			Area attempted to be protected.	Failures.	Actually protected.	Amount expended.							
	Dubare	6,718	787	0	0	11,363	447	10,916	485	0	0	1,272	0	0	1877	
	Anekadu	9,388	1,881	0	0	11,508	528	10,980	451	0	0	2,332	0	0	1876	
	Devamurchi	...	7	0	0	11,286	117	11,169	511	0	0	518	0	0	1878	
	Karmad Plantation	189	72	0	0	229	...	229	87	0	0	159	0	0	1877	
	Yedavanad...	...	2	0	0	7,284	440	6,844	596	0	0	598	0	0	1878	
	Ganagur	...	...	...	...	10,188	4	10,184	318	0	0	318	0	0	1878	
	Nalkere	...	...	...	...	75,000	1,327	73,673	463	0	0	463	0	0	1878	
	Mavukal	...	...	...	...	8,188	2,730	5,458	408	0	0	408	0	0	1878	
	Gangavara Sandal Reserve	20	19	0	0	25	..	25	...	..	...	19	0	0	1877	
	Arkere	...	...	...	...	2,990	2,990	...	165	0	0	165	0	0	1878	
	Total.....	16,315	1,989	0	0	1,38,061	8,583	1,29,478	3,484	0	0	6,252	0	0		

Note.—A sum of Rs 96 spent on protecting fire from Yedenalknad.

Charged in previous year	2,768	0	0
Do in 1878—79	3,132	0	0
Do in 1879—80 up to 31st May 1879 ..	448	0	0
Total.....	6348	0	0

Form No. 48.

FOREST DEPARTMENT, COORG DIVISION.

Prosecutions for Breaches of Forest Rules during 1878—79.

Forest Division Civil and Districts.	Injury to forest by fire.		Unauthorized felling or appropriation of wood and minor forest produce.		Grazing without permission or in which grazing is prohibited.		Other Offences.		Total. Prosecutions.		Total. Convictions.		Remarks.
	Cases.	Persons.	Cases.	Persons	Cases.	Persons	Cases.	Persons	Cases.	Persons	Cases.	Persons	
					Nil.								

Form No. 49.

Annual Summary of Revenue and Expenditure for the year 1878—79.

	Budget Heads.	Coorg Division.			Total.			Remarks.
	Revenue Receipts.							
I.	*a.* Timber	* 4,275	10	1				* Includes Rs. 38-14-0 doubly credited by the Subedar of Nanjarajpatna Talnk in Feb: 1879.
	b. Firewood and Charcoal...	1,497	11	0				
	c. Bamboos	753	13	2				
	d. Sandalwood	14,342	0	2				
II.	*a.* Timber	3,108	8	0				
	c. Bamboos	245	10	0				
	d. Grazing dues	52	7	0				
	e. Other minor produce	1,579	0	0				
	Cardamoms	17,323	12	1				
III.	Confiscated wood	802	0	0				
V.	*a.* Fines and forfeitures	13	0	0				
	b. Refunds	92	2	6				
	c. Other sources	7,934	5	2				
					52,019	15	2	
	EXPENDITURE.							
	A. Conservancy and Works.							
I.	*a.* Timber	3,680	11	1				
	b. Firewood and Charcoal	1,254	10	9				
	c. Bamboos	494	10	0				
	d. Sandalwood	1,380	4	3				
VI.	*b.* Feed and keep of Cattle	...	..	...				
	c. Plant and Tools	405	0	0				
VII.	*a.* Roads and Bridges	83	12	0				
	b. Buildings	779	12	10				
VIII.	*a.* Demarcation	1,144	11	8				
	d. Plantation	2,111	2	7				
	e. Protection from fire	3,233	3	10				
IX.	*b.* Law Charges	102	9	0				
	Total A, Conservancy and Works.....	...	...	..	14,670	8	0	
	B. Establishment.							
I.	Salaries—							
	b. Superior Officers	5,908	1	0				
	c. Forest and Depôt Establishment	7,748	0	9				
	d. Office Establishment	2,033	13	10				
					15,689	15	7	
II.	Travelling Allowances—							
	b. Superior Officers	2,144	8	0				
	c. Forest and Depôt Establishment	833	13	1				
	d. Office Establishment	300	1	11				
					3,278	7	0	
III.	Contingencies—							
	a. Stationery	144	8	11				
	b. Carriage of tents and records	333	3	6				
	c. Rents, Rates and Taxes...	240	0	0				
	e. Official Postage	184	15	6				
	f. Sundries	287	4	2				
					1,190	0	1	
	Grand Total B, Establishment.. ...	...	...	..	20,158	6	8	
	Grand Total of all Expenditure.....	..	...		34,828	14	8	

Form No. 50.

FOREST DEPARTMENT, COORG DIVISION.

Account Current for the year 1878—79.

Dr.						*Cr.*					
To Cash Balance on 1st April 1878	278	15	2			By Expenditure under A Coorg Division	14,670	8	0		
Revenue received in cash	51,973	15	2			Do under B do...	20,158	6	8		
Adjusted by Book Transfer	46	0	0			Revenue Remittance to State Treasuries	51,973	15	2		
Remittance from State Treasuries...	37,422	14	1			Do adjusted by Book Transfer	46	0	0		
Do office rent by Bills	160	0	0			Transferred to other Departments...	597	11	4		
						Advances recoverable	2,421	3	3		
						Cash Balance on 31st March 1879	14	0	0		
Grand Total Rupees.....	...	...	...	89,881	12 5	Grand Total Rupees.....	...	...	...	89.881	12 5

Form No 51.

Annual Statement of Outstandings and Liabilities on account of Contractors and Disbursers for 1878—79.

Division.	Department Debtor.									Department Creditor.									Balance due.						Remarks.
	At commencement of the year.			Recoveries in cash and value of supplies and work done during the year.			At close of the year.			At commencement of the year.			Payments made during the year.			At close of the year.			To Department outstandings.			To Department Liabilities.			
Coorg Division	...	...	...	14,670	8	0	14,670	8	0	*277	13	6	16,827	13	9	17,105	11	3	2,435	3	3	...	...	...	* Rs. 1-1-8 being balance under head B. Establishment was included in last year's figure. It is now excluded.

Form No. 52.

FOREST DEPARTMENT, COORG DIVISION.

Annual Statement of Outstandings on Account of Revenue during the year 1878—79.

Division.	Particulars.	Outstandings at the commencement of the year.			Value of Sales and other Revenue during the year.			Total.			Amount realized during the year.			Balance due to the Department at end of the year.			Remarks.
Coorg.	I. (a.) Timber	...	...	...	4,497	11	10	4,497	11	10	4,275	10	1	222	1	9	
	(b.) Firewood and charcoal...	48	2	0	1,475	5	0	1,523	7	0	1,497	11	0	25	12	0	
	(c.) Bamboos	18	12	0	736	11	2	755	7	2	753	13	2	1	10	0	
	(d.) Sandalwood	8	0	0	14,346	8	2	14,354	8	2	14,342	0	2	12	8	0	
	II. (a.) Timber	...	...	...	3,108	8	0	3,108	8	0	3,108	8	0	...	...	...	
	(c.) Bamboos	...	...	...	269	10	0	269	10	0	245	10	0	24	0	0	
	(d.) Grazing and fodder grass	...	...	...	52	7	0	52	7	0	52	7	0	...	...	...	
	(e.) Other minor produce...	516	0	0	1,962	0	0	2,478	0	0	1,579	0	0	899	0	0	
	Cardamoms	19,682	11	3	19,564	3	11	39,246	15	2	17,323	12	1	21,923	3	1	
	III. Confiscated drift and waif wood	561	0	0	241	0	0	802	0	0	802	0	0	...	...	...	
	V. (a.) Fines and forfeitures...	...	...	...	13	0	0	13	0	0	13	0	0	...	...	..	
	(b.) Refunds...	...	...	...	92	2	6	92	2	6	92	2	6	...	...	...	
	Grand Total Rs.....	23,475	1	3	58,186	0	9	81,661	2	0	52,019	15	2	29,641	2	10	

Form No. 53.

FOREST DEPARTMENT, COORG DIVISION.

Statement of Trees felled during the year 1878—79.

Division.	Forest Range.	Locality.	Description of Trees.	On hand from previous year.		Felled during current year.		Total.		Disposed of during current year.			Closing Balance.		Remarks.
				No.	C. feet.	No.	C. feet.	No.	C. ft.	How disposed of.	No.	C. feet.	No.	C. feet.	
Coorg.	South Coorg ...	Nalkere ...	Teak...	...	...	42	...	42	...	Trees squared into logs.	42	...	...	...	
			Total.....	...	...	42	...	42	...		42	...	...	...	
	North Coorg...	Dubare ...	Teak...	...	...	8	...	8	...	Do	8	...	...	...	
			Junglewood ...	...	...	84	...	84	...	Do	84	...	...	...	
			Total.....	...	...	92	...	92	...		92	...	...	...	
		Anekadu ...	Teak...	...	...	6	...	6	...	Do	6	...	...	...	
			Junglewood ...	...	...	43	...	43	...	Do	43	...	...	...	
			Total	...	...	49	...	49	...		49	...	...	...	
			Grand Total.....	...	...	183	...	183	...		183	...	...	...	

Form No. 54.

FOREST DEPARTMENT, COORG DIVISION.

Statement of Logs, Sleepers and other Scantlings cut and exported during the year 1878—79.

Division.	Forest Range.	Locality.	Description of Timber and Scantling.	On hand from previous year.		Cut during current year.		Total.		Disposed of during current year.			Closing Balance.		Remarks.
				No.	C. ft.	No.	C. ft.	No.	C. ft.	How disposed of.	No.	C. ft.	No.	C. ft.	
		Nalkere	Teak logs...	169	3,248	91	2,116	260	5,364	Struck off the accounts.	121				
			Do branch pieces	...	...	...	...	...	...		54	2,094	85	3,270	
			Junglewood logs	25	786	...	...	25	786		11	259	14	527	
				194	4,034	91	2,116	285	6,150	...	186	2,353	99	3,797	
		Balumane	Teak logs ..	4	93	...	...	4	93	...	...	...	4	93	
			Junglewood logs	33	916	...	...	33	916	...	3	75	30	841	
			Do poles	216	...	246	...	462	...	...	218	...	244	...	
			Bamboos ...	4,012	...	...	...	4,012	...	...	2,330	...	1,682	...	
			Fire sticks...	698	...	...	...	698	...	...	73	...	625	...	
				4,963	1,009	246	...	5,209	1,009	...	2,624	75	2,585	934	
		Attur	Firewood cart-loads	...	...	2,240	...	2,240	...	...	2,240	...	...	...	
		Kesavinakere	Junglewood logs	13	360	...	...	13	360	...	...	...	13	360	
			Do poles	28	...	...	...	28	...	...	...	...	28	...	
			Bamboos ...	8,306	...	200	...	8,506	...	...	700	...	7,806	...	
			Firesticks ...	...	...	...	...	...	...	...	...	...	...	...	
				8,347	360	200	...	8,547	360	...	700	...	7,847	360	
		Anekadu	Teak logs ...	15	206	6	88	21	294	...	5	64	16	230	
			Do poles	21	...	...	...	21	...	...	...	...	21	...	
			Junglewood logs	47	731	48	660	95	1,391	...	31	404	64	987	
			Do poles	156	...	...	...	156	...	...	...	...	156	...	
			Bamboos ..	11,058	...	8,540	...	19,598	...	...	8,868	...	10,733	...	
			Firesticks ...	...	...	280	...	280	...	...	280	...	...	...	
				11,297	937	8,874	748	20,171	1,685	...	9,191	46	10,990	1,217	

Form No. 54 (*Concluded.*)

Division.	Forest Range	Locality.	Description of Timber and Scantling	On hand from previous year.		Cut during current year		Total		Disposed of during current year.			Closing Balance.		Remarks
				No.	C ft.	No.	C. ft	No.	C ft	How disposed of	No.	C ft.	No.	C. ft	
		Dubare ...	Teak logs ...	4	124	10	123	14	247	...	13	209	1	38	
			Do poles ...	2	...	7	...	9	...	...	1	...	8	...	
			Junglewood logs ...	31	732	91	1,078	122	1,810	...	87	1,107	35	703	
			Do poles ...	196	...	2	...	198	...	...	2	...	196	...	
			Bamboos	23,355	...	7,000	...	30,355	...	...	7,868	...	22,487	...	
				23,588	856	7,110	1,201	30,698	2,057	...	7,971	1,316	22,727	741	
		Mottekadu ...	Junglewood logs ...	5	83	...	...	5	83	Struck off	5	83	...	...	
			Do poles ...	...	...	...	...	...	...	...	...	..	...	...	
		Kesarhalli ...	Junglewood logs ...	18	492	...	...	18	492	...	...	..	18	492	
			Do poles ...	...	...	...	...	...	...	...	...	...	...	...	
			Bamboos	...	...	...	...	...	..	...	...	..	...	...	
			Firesticks	45	...	203	...	248	..	...	248	...	...	..	
				63	492	203	...	266	492	..	248	...	18	492	
		Sidlingapur ...	Junglewood logs ...	31	675	...	...	31	675	...	22	501	9	174	
			Do poles ...	..	...	96	...	96	..	...	96	...	...	...	
			Bamboos	...	...	3,023	...	3,023	..	...	3,023	..	...	...	
			Firesticks	...	...	22	...	22	...	...	22	...	...	...	
				31	675	3,141	...	3,172	675	...	3,163	501	9	174	
		Yamme Basavan Kanave ...	Bamboos	...	...	25	...	25	...	...	25	...	...	...	
				...	...	25	...	25	...	...	25	...	...	...	
			Grand Total.....	48,488	8,446	22,130	4,065	70,618	12,511	...	26,343	4,796	44,275	7,715	
			Sandalwood.												
			Good wood.. ...	..	...	18½	Tons	18½	...	...	18½	..	...	...	
			Inferior wood ..	...	...	14½	do	14½	..	...	14½	..	...	...	
			Total.	...	...	33	...	33	...	...	33	..	...	...	

Form No. 55.

FOREST DEPARTMENT, COORG DIVISION.

Statement of Timber and other Produce brought to Depôt from the different Divisions during 1878—79.

Division.	Forest.	Description of Timber.	Number of— Pieces.	Number of— C. ft.	Total of each Division. Pieces.	Total of each Division. C. ft.	Remarks.
	Húnsúr ...	Teak logs	121	2,094			
		Jungle logs	11	259			
					132	2,353	
	Tittimatti ...	Jungle logs	3	75			
		Do poles	218	...			
		Bamboos	3,030	...			
		Firesticks	73	...			
					3,324	75	
	Fraserpet ...	Teak logs	14	224			
		Jungle logs	94	1,201			
		Teak poles	1	...			
		Jungle poles	2	...			
		Bamboos	8,068	...			
		Firesticks	280	...			
					8,459	1,425	
	Mercara ...	Teak logs	4	49			
		Jungle logs	24	310			
		Bamboos	8,665	...			
					8,693	359	
	Kesarhalli ...	Firesticks	248	...			
					248	...	
	Sidlingapur ...	Jungle logs	22	501			
		Do poles	96	...			
		Bamboos	3,023	...			
		Firesticks	22				
					3,163	501	
	Firewood Depôt ...	Firewood cart-loads ...	2,240				
					2,240	...	
	Yamme Basavan Kanave ...	Bamboos	25				
					25	...	
		Total.....	Timber.		26,284	4,713	
	Fraserpet Sandal Koti. ...	Good wood	18½				
		Inferior wood	14½				
					33	...	
		Total.....	Sandal.		33		

Form No. 56.

FOREST DEPARTMENT, COORG DIVISION.

Annual Account of Timber and other Produce for the year 1878—79

Particulars.	Pieces.		Total.	
	No.	C. ft.	No.	C. ft.
Balance in hand at commencement of the year including bamboos	24,321	7,478	...	...
Received during the year including bamboos ...	26,284	4,713	...	...
Total.....	...	...	50,605	12,191
	Tons.			
Balance in hand				
Sandalwood	3¼	..	..	...
Received during the year	33	...	...	...
Total.....	...	...	36¼	...

Particulars.	Pieces.		Total.	
	No.	C. ft.	No.	C. ft.
Removed by purchasers including bamboos, &c. ...	42,080	4,519	...	...
Balance in hand including bamboos, &c. ...	8,525	7,672	...	...
Total.....	...	...	50,605	12,191
	Tons.			
Removed by purchasers...	33¾	...	...	...
Lost or used (Priage)	2¼	...	...	...
Balance in hand	¼	...	...	...
Total.....	...	...	36¼	...

Form No. 57.

FOREST DEPARTMENT, COORG DIVISION.

Statement shewing the Amount realized on account of the different classes of timber and other produce sold during the year 1878—79.

Division.	Description of Wood.	No. of pieces, &c, sold.	Cubical Contents.	Amount realized on account of sales.			Average amount per log.			Average cubical contents of logs.	Average Amount per cubic foot.			Remarks.
	Teak logs	132	2,061	1,882	7	9	14	4	2	15½	...	14	7	
	Teak poles	1	...	2	8	0	2	8	...	...	...	...	...	
	Junglewood logs	142	2.458	1,256	3	8	8	13	7	17¼	...	8	2	
	do poles	725	...	186	8	10	...	4	1	...	...	...	...	
	Mattigod timber (Government share) ...			1,181	1	7	...	...	...	...	...	...	...	
		1,000	4.519	4,458	13	10								
	Firewood cart-loads	2,191	...	1,433	13	0	...	10	5					Per cart-load.
	Fire sticks	664	...	41	8	0	...	1	...					Each.
		2,855	...	1,475	5	0								
	Bamboos	38,225	...	736	11	2	19	4	4					Per 1,000. Small average owing to a large quantity of rotten bamboos sold.
		38,225	...	736	11	2								
	Grand Total.....	42,080	4,519	6,670	14	0								
	Sandalwood.	Tons.												
	Good wood	19½	...	10,732	7	1	550	5	9					
	Inferior wood	14½	...	3,614	7	1	249	4	4					
		33	...	14,346	8	2								
	Grand Total Rs.....	...	...	21,017	6	2								

Deduct—

Amount due, but not realized during the year .. .. Rs. 253 15 9

Balance Rs. 20,763 6 5

Add—

Amount realized on account of former years 66 14 0

Total shewn as Revenue on account of sales under Budget Head I 20,830 4 5

Form No. 58.

FOREST DEPARTMENT, COORG DIVISION.

Statement showing the Amount expended on the different classes of Timber and other Produce brought to Depôt during the year 1878—79.

Division or Depôt.	Particulars of Timber.	Number of— Pieces.	Number of— Cubical Contents.	Expenditure. Timber expenditure under A.I.	Expenditure. Quota of all other expenditure chargeable against timber.	Expenditure. Total amount chargeable against timber.	Average. Amount per piece.	Average. Cubical Contents per piece.	Average. Amount per cubic foot.	Remarks.
	Fellings.									
	Teak logs	107	2,326	101 3 5	32 1 2	133 4 7	1 3 11	21½	0 0 11	
	Do poles	7	...	... 8 0	3 2 6	... 10 6	0 1 6	...	... ...	
	Junglewood logs	139	1,738	126 0 0	40 0 6	136 0 6	1 3 1	12½	0 1 6	
	Do poles	98	...	31 12 9	10 2 8	41 15 5	0 6 10			
	Bamboos	18,788	...	93 1 10	29 8 9	122 10 7	6 8 5			Per 1,000.
	Firewood cart-loads	2,240	410	13 0 0	130 4 2	541 1 2	0 3 10			Per cart-load.
	Fire sticks	505	...	23 10 9	7 10 1	31 4 10	0 0 11			Each.
		21,884	4,064	787 1 9	249 13 10	1,036 15 7	... ...			
	Collections.									
	Teak logs	139	2,367	561 5 6	6 4 6	567 10 0	4 1 4	1 7	0 3 10	
	Do poles	1	...	... ...	... ...	... ...	... ...	...	... ...	
	Junglewood logs	154	2,346	512 12 3	5 12 0	518 8 3	3 5 10	15¼	0 3 6	
	Do poles	316	...	22 0 0	0 4 0	22 4 0	0 1 1			
	Bamboos	22,811	...	401 8 2	4 8 6	406 0 8	17 12 9			Per 1,000.
	Firewood cart-loads	2,240	...	820 3 0	9 3 0	829 6 0	0 5 11			Per cart-load.
	Fire sticks	623	...	... ...	... ...	... ...	... ...			
	Total.....	26,284	4,713	2,317 12 11	26 0 0	2,343 12 11				
	Sandalwood.									
	Good wood	18½	...	740 0 0	35 12 9	775 12 9	41 14 10			
	Inferior wood	14½	...	578 6 11	26 0 7	604 7 6	41 10 10			
	Total.....	33	...	1,318 6 11	61 13 4	1,380 4 3				

Form No 59.

FOREST DEPARTMENT, COORG DIVISION.

Statement shewing the Revenue derived from and Expenditure incurred on Timber and other Produce sold to Public Departments from Depôt, during the year 1878—79.

Name of Department.	Particulars of Supplies.	Amount supplied.	Rate.	Amount of Revenue. Due.	Received.	Outstanding.	Cost to Forest Department. Timber Expenses under A I.	Quota of all other Expenditure.	Total.	Comparison of Revenue and Expenditure. Surplus.	Deficit	Remarks.
Public Works Department ...	Kadu Halsu ...	1	10 0 0	10 0 0	10 0 0	...	...	...	...	10 0 0	...	
	Nagamara ...	6	3 0 0	18 0 0	18 0 0	...	...	...	...	18 0 0	...	
	Nandi ...	4	4 8 0	18 0 0	18 0 0	...	...	...	...	18 0 0	...	
	Total.....	11	...	46 0 0	46 0 0	...	...	...	...	46 0 0	...	

Form No. 60.

Abstract shewing the Value of Timber and of Live and Dead Stock for the year 1878—79.

Description of Timber and other Stock.	On hand at commencement of the year. No.	Value	Received during the year. No.	Value	Total No.	Value.	Sold, otherwise disposed of and lost during the year, and allowances for depreciation No	Value.	On hand at close of the year. No.	Value.	Cause of Loss and other Particulars.
Teak logs	56	728 0 0	139	1,807 0 0	195	2,535 0 0	132	1,718 0 0	63	819 0 0	
Do poles	...	.. ..	1	1 0 0	1	1 0 0	1	1 0 0	...	.. 0 0	
Junglewood logs ..	534	4,272 0 0	154	1,232 0 0	688	5,504 0 0	142	1,136 0 0	546	4,368 0 0	
Do poles	640	640 0 0	316	316 0 0	956	956 0 0	725	725 0 0	231	231 0 0	
Firewood, cart loads ...	...	... ...	2,240	2,240 0 0	2,240	2,240 0 0	2,191	2,191 0 0	49	49 0 0	
Fire-sticks	1,238	77 0 0	623	39 0 0	1,861	116 0 0	664	41 0 0	1,197	75 0 0	
Bamboos	21,853	438 0 0	22,811	456 0 0	44,664	894 0 0	38,225	765 0 0	6,439	129 0 0	
Total.....	24,321	6,155 0 0	26,284	6,091 0 0	50,605	12,246 0 0	42,080	6,575 0 0	8,525	5,671 0 0	

Form No. 60 (A.)

FOREST DEPARTMENT, COORG DIVISION.

Abstract shewing the Value of Sandalwood for the year 1878—79.

Description of Wood.	On hand at commencement of the year.		Received during the year.		Total.		Sold or otherwise disposed of and lost during the year and allowances for depreciation.		On hand at close of the year.		Cause of loss and other particulars.
	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	
Good Wood	3¼	1,300 0 0	18½	7,400 0	21¾	8,700 0 0	19½ 2¼	8,700 0 0	...	... ...	2¼ tons driage.
Inferior Wood	...	... ...	14½	464 0 0	14½	464 0 0	14¼	456 0 0	¼	8 0 0	Valued at Rs. 400 per ton for good and Rs. 32 per ton for inferior wood.
Total.....	3¼	1,300 0 0	33	7,864 0 0	36¼	9,164 0 0	36	9,156 0 0	¼	8 0 0	

COORG CHIEF COMMISSIONER'S OFFICE,
Bangalore, 7th August 1879.

W. J. CUNINGHAM,
Secretary.

Mysore Government Press, Bangalore.—2-9-79—400.

PROGRESS REPORT

OF

FOREST ADMINISTRATION

IN

COORG

FOR

1879-80,

By F. B. DICKINSON, Esq.,
ASSISTANT CONSERVATOR OF FORESTS.

WITH A REVIEW BY THE CHIEF COMMISSIONER

AND

ORDERS BY THE GOVERNMENT OF INDIA.

1880.

No. 631F, dated Simla, the 1st October 1880.

From—The Hon'ble C. Grant, C. S., Offg. Secretary to the Government of India, Home, Revenue and Agricultural Department,

To—The Chief Commissioner of Coorg.

I am directed to acknowledge the receipt of your Secretary's letter No. 717—136R.F., dated the 3rd September 1880, submitting the Progress Report of Forest Administration in Coorg for the year 1879-80, and to communicate the following observations and orders thereon.

2. The area of the Government forests was in the report for the previous year returned as 189,166 acres. During the year under review it has been diminished by 5,118 acres, which have been excluded with the view of being thrown open for coffee plantations. A large decrease in the recorded area has been made by the substitution of actual areas, as determined by the survey, for areas which had only been estimated. From Return No. 45, it is gathered that these corrections have been chiefly in the Nalkere and Ganagur forests, as follows :—

	Old area.	Corrected area.
	Acres.	Acres.
Nalkere	75,000	25,742
Ganagur	10,188	5,989

Two forests situated near the Ghâts, *viz.*, Urti and Kerti, the area of which was formerly not estimated, are now entered with an aggregate area of 10,240 acres.

3. The result is that the total area of the Government forests in Coorg is now returned at 140,722 acres, and a portion of this area is only estimated.

Apparently, however, some additions may be expected along the line of Ghâts. The progress made in the demarcation of these forests during the year under review is the most satisfactory feature of the report. From paragraph 6 of your orders, and paragraphs 12 and 13 of the Assistant Conservator's report, the Governor General in Council is glad to learn that Mr. Dickinson has succeeded in stopping Kumri cultivation in the Ghât forests proposed to be included in the reserves.

4. In paragraph 3 of the orders on last year's report a statement was requested, showing which forests had been surveyed, what remained to be done in this respect, and what arrangements you proposed to make for the survey of the remainder. No information on this subject has, however, been received during the year, and none is given in the present report. It should now be submitted at an early date.

5. Fire protection appears not to have been as successful as in 1878-79. The area actually protected was less, *viz.*, only 102,865 acres, while the failures were 19,784 acres. The burning of the Karmad plantation of 229 acres, upon which Rs. 20,444 have been expended, is very unfortunate.

6. The total area of plantations at the close of the year is returned as 580 acres, but you have justly called for a report showing how many of the plantations are fairly stocked. Of Kutanpole (152 acres), the Assistant Conservator states that so few plants were found growing that it was not thought worth while to incur further expenditure on them. Apparently this place in no way merits the name of a plantation. The sandalwood plantation of Gangavara is returned at 25 acres at the commencement and 56 acres at the close of the year. But in paragraph 31 Mr. Dickinson speaks of only 25 acres as half stocked. It is an old standing rule that no areas must be entered in the annual plantation returns which are not fairly stocked, and this rule seems to have been disregarded in the forest reports of Coorg. Upon the whole, the success in the cultivation of sandalwood has been indifferent. In the orders on the Annual Report for 1878-79, No. 808, dated the 13th October 1879, it was suggested that an intelligent subordinate forest officer from Coorg should be deputed to spend some time at the sandalwood plantations established in the Madras Presidency, in order to learn the practice there followed in the cultivation

of this tree. Mr. Dickinson states that these orders only reached him in January last, and that the season was then too far advanced to admit of his carrying them out. It is hoped that steps have now been taken to give effect to them. A move in the right direction has been made by providing small clearings for planting sandal at each forest station. It is presumed that these plots are fenced and duly protected. Any progress made in the cultivation of sandalwood should be recorded in detail in each annual forest report.

7. The Governor General in Council is glad to gather from paragraph 56 that a commencement has been made to determine approximately the number of sandalwood trees of the different classes growing in the province. The classification, however, adopted seems to be far too elaborate. Besides dry trees, no less than six classes of growing trees are entered in the return. Obviously such an enumeration in detail can only be made by the agency of subordinates, and it seems difficult to understand how subordinate officers should be able to classify trees in a trustworthy manner as fit to cut in less than 10 years, or in 10 years, or in 20, 30, 40, and 50 years. It is presumed that the object aimed at in making this enumeration is to determine the quantity of sandalwood which may in future be cut annually; and for this purpose it will probably be found sufficient to enumerate dry trees and say two classes of green trees,—those that will attain maturity within the next 20 years, and younger trees.

8. The financial results were better than in 1878-79—

		Rs.	Rs.
Receipts	... ...	...	1,01,786
Charges	Conservancy and Works ...	30,543	
	Establishments ...	24,622	55,165
	Surplus	...	46,621

Under receipts the chief items are Rs. 35,895, realised by the sale of 101 tons of sandalwood, and Rs. 38,672 on account of cardamoms. Of the last item, however, Rs. 18,167 were balances of previous years.

9. The insufficiency of the Coorg forest rules of 1871 is adverted to by the Superintendent of Coorg and by the Assistant Conservator. But the report called for in paragraph 2 of the orders on the forest report for 1878-79 has not yet been received.

10. In conclusion, I am to suggest that, as the statement intended to show the area of unreserved forests in Coorg is blank, it may be omitted; also that in accordance with previous orders on the subject statements 57 and 58 be omitted, provided that the results are stated in the body of the report.

G. C. B. Press, Simla.—No. 629, H., R. & A. D.—7-10-80.—1360.

Proceedings of the Chief Commissioner of Coorg, General Department, 27th August 1880.

READ—

The Coorg Forest Report for 1879—80.

No. 675—R. F. 130, DATED BANGALORE, 27TH AUGUST 1880.

REVIEW BY THE CHIEF COMMISSIONER.—The Report has been drawn up by Mr. F. B. Dickinson who was in charge of the Forests during the year.

2. An addition of one forest measuring 395 acres has been made to the list of reserved forests, but the Assistant Conservator has not submitted the notification regarding the formation of Alúr Forest, for publication in the Gazette. The area of the forests has been reduced from 295 Sq. M. 189,166 acres to 220 Sq. M. 140,722 acres owing to survey corrections. In para 5 the total area by survey is shewn as 129,202·09, while the figured Statement No. 45 shews 140,722. The discrepancy is explained by the fact that the latter figure includes both the surveyed and estimated areas.

3. In para 6 the Assistant Conservator complains of want of assistance by the Revenue Officials in demarcating Ghat Forests, and the Superintendent of Coorg in his remarks appears to throw the blame on the ryots, and has proposed that they be compelled to assist, but the Assistant Conservator's complaint is not against ryots, but officials who could have easily afforded a few days' assistance without any serious detriment to their Revenue work.

4. Para 7.— The demarcation of the Ghat Forests progressed satisfactorily. A line of 78½ miles was cut at a total cost of Rs. 890—12—5 or 11—5—6 per mile. The length of line ready for surveying is stated to be 82½ miles which leaves only 4 miles for the previous year's work, which is all that was accepted. A tracing of the country containing the Western Ghats illustrating the line cut is appended.

5. The leasing of the Urti and Kerte Forests to Mr. Chisholm referred to in para 10 has since been sanctioned, and the raising of the price of ebony from Rs. 6 to Rs. 15 has also been sanctioned in Chief Commissioner's Proceedings No. 162—32, dated 12th May 1880.

6. It is highly gratifying to find that the Assistant Conservator has taken decisive steps to stop "Kumri", the wasteful and pernicious cultivation which was hitherto allowed as an old established custom and a matter of necessity. It is hoped that the Kurubars will be kept sufficiently employed by the Department to prevent their having recourse to "Kumri" again as a means of living. These men should be induced by regular and liberal remuneration to take to the work that the Forest Department can offer them. The prohibition of "Kumri" should be kept steadily in view.

7. The demarcation of the Reserved forests was pushed on vigorously and 103½ miles of new lines were opened up at a cost of Rs. 1,109 against 18½ miles of the preceding year. The other operations under this head embrace the up-keep of 204 miles of old line at a cost of Rs. 1,071 against 13½ of the preceding year. There has been a satisfactory reduction in the ratable cost of all these operations.

8. Out of a total area of 122,849 acres attempted to be protected, only 102,865 acres were successfully protected at a cost of Rs. 4,503; the failures amounted to 19,984 acres or about 16 per cent. This, the Assistant Conservator reports, is due to the laxity of the Foresters in keeping the fire-guards up to their duty and to want of method in their arrangements.

9. The area of plantation is entered as 480 sq. miles on 1st April 1879 against 406 of the preceding year. The number of plantations is entered at 17 against 3 of the previous year. From para 36 it is seen that only one new plantation named Hirekere was opened during the year under review. According to para 7 of Government of India letter No. 470 F., dated 29th May 1879, passing orders on the Forest Administration Report for 1877—78, only fairly stocked areas should be entered in Statement No. 46, and the Assistant Conservator will report how many of the 17 plantations are fairly stocked.

Proceedings of the Chief Commissioner of Coorg, General Department,
27th August 1880.

10. Paras 26 and 29.—The cultivation of sandal engaged the attention of the Assistant Conservator during the year, and although the attempts that were made to raise the plant have not been altogether successful, the knowledge and experience gained thereby of the conditions conducive to rearing the plant are worth the labor and time spent on the experiments. The experience thus gained, Mr. Gordon hopes, will lead to better results.

In addition to the two existing sandal plantations of Gangavara and Fraserpet, a third one is opened near Hirokore. Small clearings for planting sandal have also been made at 7 forest stations, and it is hoped that Mr. Dickinson will be able to give a satisfactory account of these attempts in his future report.

11. Five re-production *coupes* have been opened and the most important of these are Dubare, Nalkeri and Anékadu. The account given of these in paras 42 and 43 is interesting and the Chief Commissioner hopes that when the right conditions of light and air are secured this plan of re-stocking exhausted forests will be invaluable.

12. Para 44.—The Chief Commissioner considers it unfortunate that the right of collecting minor forest produce has been sold by public auction, for if the system of collecting by 'Amani' could have been profitably introduced it would enlist the people themselves on the side of the Forest Department in keeping fires out of the forests.

13. Almost all the timber was obtained from dry and fallen trees, and only a small portion of it was the produce of reproducing fellings in coupes, which are made with the object of re-stocking the land. Mr. Dickinson reports nearly the whole quantity of timber sent to depôts was collected in a limited space in one of the forests. At this rate timber supply may be looked for from dry and fallen trees for several years to come without trenching on living and growing trees.

14. The methods suggested in paras 53 and 54 of carting timber, considering the paucity of contractors by sawing up, otherwise unmanageable logs and by floating timber down the river Cauvery, are ingenious and thoughtful and it will be interesting to hear how they succeed.

15. The enumeration and valuation of sandal has not proceeded further than to enable the Assistant Conservator to speculate on its results. If the number given of dry and over-mature trees is correct, and it does not appear that Mr. Dickinson's reasoning is open to doubt, the stock is ample to supply sandal at present rates of collection for some years without touching the growing trees.

16. The Superintendent's opinion on the proposed arrangements described in para 59 for meeting the requirements of the people is awaited, and Mr. Gordon feels that settling the rights of the population in the vicinity of State forests, and enforcing the reservation of the latter without hardship to the people, and without at the same time giving in to their, sometimes unreasonable, requests are matters of considerable delicacy.

17. The financial results of the year are as follows:—

Receipts	1,01,785
Charges	55,165
Surplus ..	46,620

18. Inspection of lands for coffee cultivation.—On 1st April 1879, 16 applications were pending and 196 were received during the year, making a total of 212. Out of these 72 were disposed of and the number pending on 1st April 1880 was 140.

W. J. CUNINGHAM,
Secretary.

To—The Superintendent of Coorg.
" Assistant Conservator of Forests, Coorg.

No. 373—161.

COORG SUPERINTENDENT'S OFFICE,

DATED COORG, 26th *July* 1880.

From

The Superintendent of Coorg.

To

The Secretary to the Chief Commissioner of Coorg,

General Department.

SIR,

I have the honor to submit herewith the Annual Report of the Assistant Conservator of Forests for the year 1879—80.

Financial Results.

1. The financial results in comparison with the previous year were—

	1879—80.	1878—79.
Receipts	1,01,785	52,019
Charges	55,165	34,828
Surplus.. ..	46,620	17,191

Income, Sales of Timber and Sandalwood.

2. The increased income is from larger sales of timber and sandalwood, which realized—

	In 1879—80.	In 1878—79.
Sandalwood	35,895—1—10	14,342—0—2
Timber including collections under I A, II A and V C.	22,153—0— 0	7,384—2—1

Cardamom Rents.

3. The cardamom rents collected were also Rupees 38,672—4—11 against Rs. 17,323—12—1 in the previous year; but the real increase from cardamom rents is only Rs. 1,869—7—7: Rs. 18,166—11—10 were balances of previous years.

Expenditure on Establishments.

4. The expenditure on establishments is Rs. 4,464—8—1 in excess of the disbursements of 1878—79.

Conservancy and Works.

5. The outlay on conservancy and works is also raised from Rupees 14,670-8-0 to Rs. 30,542—13—8.

Timber and Sandalwood collected.

6. The quantity of timber and sandalwood felled and brought to depôt as exhibited in the statements annexed, shews a good return for the money spent.

Prices realized at sales of timber and sandalwood.

7. The prices obtained at the sandalwood sales are not so good as in the previous year. The Assistant Conservator in para 55 of his report attributes this to the late date at which the sale was held. Teak and junglewood were sold for better prices than in 1878—79.

Forests thrown open.

8. The following tracts of forests in the Yedenalknad and Kiggatnad Taluks have been ordered to be thrown open for cultivation and they will be divided into convenient blocks for cultivation and be surveyed after the rains are over.

				Acres.
1.	Devamurchi	No. 4	area	1,465·38
2.	Do	No. 5	"	322·28
3.	Do	No. 6	"	1,926·06
			"	3,713·72
4.	Arkere Forest		"	1,404·69
	Total.		"	5,118·41

9. The Assistant Conservator in para 5 of his report gives the surveyed area of the reserved forests as 129,202·09 acres. This is the area given by the Survey Department in the statements, copies of which were submitted to the Secretary to the Chief Commissioner, with letter from this Office, dated 19th December 1879, No. 504—76.

Area of Reserved Forests.

10. The area given in Form No. 45 attached to the Assistant Conservator's report is 140,722 acres; but this includes some tracts which have not been surveyed and excludes area thrown open for cultivation during the year.

11. The forests in the Western Ghats which are now being demarcated are not yet included in the reserves.

12. The plan of marking the boundary lines with posts and trenches and blazing the trees has been tried in the Padinalknad.

Demarcation.

13. With regard to the Assistant Conservator's complaint regarding assistance not having been given by the revenue officials in demarcating the ghat forests in Padinalknad, a report has been already made in letter from this Office, dated 7th May 1880, No. 86—58; one Patel who did not give aid when called upon was dismissed and the enquiry regarding another Patel is pending; he declares that he did all that was wanted, and the Probationer says he did not. At the same time the Assistant Conservator expects too much when he wants the villagers to turn out readily to demarcate and close the forests against themselves. Besides the Parpattegars cannot be spared from their revenue duties in the beginning of the year. The arrears of assessment in Padinalknad are heavy and difficult to collect, and if the Parpattegar had been called to other duties in February and the following months, there would have been very large balances and serious embarrassment; all this was explained to the Assistant Conservator. The general question regarding the villagers being compelled to furnish labor in such cases is being reported on separately, and when the matter is decided it might be settled about the villagers turning out to extinguish forest fires.

14. There has been little done in the teak plantations at Karmad and Kutampolle but a fuel plantation has been opened near Mercara and re-productive coupes in the different forests are being tried. One hundred acres altogether were added to the area of plantations during the year at a cost of Rs. 4,488-1-2, giving an average of Rs. 44-14-1 per acre. In 1878—79 ten acres were planted at a cost of Rs. 211-1-6 per acre.

Plantations.

15. The experiments in the cultivation of sandalwood have been continued and though success has not been attained the conditions under which the plants flourish best appear to have been found out and there is more hope for the future.

Sandal Cultivation.

16. It is to be regretted that fire conservancy has not been more successful; but Mr. Dickinson may be relied on to do all that can be done in this difficult matter.

Fire Conservancy.

17. The Assistant Conservator's plan of sawing up the large logs in the forests will, if executed, not only save carriage but will enable timber of larger size and greater value to be brought to the depôts.

Sawing.

18. Attention seems to have been given to improving the forest roads, but it will be necessary to spend more money under this head in order to make the forests easily accessible to carts.

Roads.

19. The annual statements are appended to the Assistant Conservator's report.

I have, &c.,

H. G. THOMSON,

Superintendent.

ASSISTANT CONSERVATOR'S REPORT.

Annual Report on the Management and Conservancy of the Coorg Forests for the Financial year 1879-80 *by* F. B. DICKINSON, ESQ., *Assistant Conservator of Forests, Coorg Division.*

I have the honor to submit the Annual Report of the Coorg Forest Division for the year 1879-80.

I. SUMMARY OF ADMINISTRATION DURING THE YEAR.

2. The Division has been under my charge during the whole of the year. Mr. King, Assistant Conservator of Forests, left on 15 months' furlough to England in May.

3. Mr. Muttanna, Probationer, has carried on the work for which he (Mr. King) was deputed.

4. The desired introduction of the new Act has not yet been effected. It has been strongly advocated, because of among other reasons the total want of legislation for the district forests in Coorg, as the old Act of 1865 hardly refers to them.

II. RESERVED FORESTS.

5. The areas of the reserved forests are given in Form No. 45. The estimated area of Nalkere was found to far exceed the true area as communicated by the Survey Department. The total area by survey is 129,202·09 acres or 93 square miles less than what was supposed to be last year. The bit of Arkeri Forest which was included in the Hatgatnad Forest has been excluded by the Survey, but they have not yet communicated the correct areas of the two forests, so they are bracketed together.

A few bits have been added to the Anekadu Forest, and the estimated areas are given ; when settled finally they will be surveyed.

6. The demarcation of the Ghat Forests in the Padinalknad Taluk has progressed fairly well and Mr. Muttanna deserves credit for the way he has conducted his work ; much difficulty was experienced in carrying out this work owing to the Nad and Village Officials not giving him the requisite aid. Quite double the work might have been done, had these people done their duty. If the Parpattegar had accompanied the Forest Officials the line in each Nad might have been fixed in a week, and cut in another week, and there would have been no further trouble, as it was the greatest difficulty was found in getting them to come, and show even the Schist accounts. Often Mr. Muttanna and his staff had to remain idly at their camp waiting for the officials and ryots to aid them. The expense of the line was thereby much increased as these people were drawing pay all this time.

7. The cost of the line was including cost of establishment Rs. 896-12-5 or Rs. 11-5-6 per mile. The work done compares favorably with that which was done last year in spite of all drawbacks. It was found that only a small portion of the line which was made last year could be accepted. About 4 miles altogether has been kept, and the rest changed. All along the line, large wooden posts nearly 6 feet high have been firmly fixed in the ground at about 100 yards apart. Between each two of these a long pit has been dug lengthwise in the direction of the line. These posts and pits will serve to mark the line for several years, and will render it easy to find, besides them all large trees by the side of the line have been marked with three deep axe marks one above the other.

8. The line does not come as far down the hill as could be wished, as all the jungle immediately above the village lands has been alienated either as bane or for coffee cultivation, but nearly all the sholas and higher portions of the forests have been included. Several coffee estates are situated within the line; these will be carefully entered in the forest map which will have to be made. In the list of areas will be found the estimated area of the forest included by this line between it and the frontier line.

9. The Urti and Kerti Forests were leased during the year to Mr. A. L. Tod of Tellicherry for Rs. 3,500 with the sole right of felling and removing from the beginning of June till the end of February. He felled about 120 ebony trees and a few trees of other kinds.

10. Mr. James Chisholm, a planter of South Coorg, is negotiating to take the lease during 1880-81 on better terms for the Department, and as ebony is a very valuable wood, the old rate of Rs. 6 per tree is thought inadequate; it has therefore been proposed to raise the rate to Rs. 15 per tree.

11. Licenses were given to Maplas to fell in Arokomale as it was thought unpolitic to drive them altogether from the trade. Rs. 466-0-0 was paid by them for these licenses.

12. "Kumri" cultivation was kept down in the Sampaji and neighbouring villages; I made a tour through these forests in the end of October and could not discover any signs of fresh clearings, though a small one was discovered by the revenue officials, and the offender summarily punished.

13. Until this year, this destructive custom has been allowed in the Mavukal and Nalkere Forests under the supposition that it was a necessary one, and that the Kurubars would not stay and work if they were not allowed to have their bit of kumri. This last hot weather however we took the bull by the horns and forbad any more clearings, and so far no great inconvenience has been experienced, although the measure had of necessity to be taken at the very time when we most required the services of the Kurubars, *i. e.*, at the time when fires were most to be feared. Now that we have taken the first step, I hope the Kurubars will be satisfied with the work we are able to give them in planting up the coupes and in felling, and that they will cease after a time to hanker after their kumri clearings.

14. There is little of importance to add to the descriptive account of the forests given in the two last Annual Reports. The chief feature noticeable is the general growth of large bamboos especially in the Mavukal, Arkere, Hatgatnad and Nalkere Forests, and to a less extent in the northern forests. The dibbling in of seed was not successful in two different forests where it was tried, namely Dubare and Nalkere, and it will probably be better to confine re-stocking measures to the coupes.

II. PROTECTION AND IMPROVEMENT.

15. *Demarcation.*—The demarcation of the ghat forests has already been touched upon in paras 6 and 7. 78½ miles were cut as shewn in the accompanying statement. Including the work done in 1878-79, there are now 82½ miles ready to be surveyed and mapped which it is hoped will be done next year. A tracing of the tract of country containing the Western Ghats, on which the direction of the line is shewn, is enclosed. It will be seen that the line is very crooked, but there is unfortunately no means of remedying this, as what is left on the eastern slopes of the ghats is in many places very scanty, so every thing is included that can be.

16. New lines have also been cut in the Arkere and Hatgatnad Forests along the frontier to a length of 9 miles in connection with fire conservancy. This completes the circuit of the forests on the east; in future they will be cleared every year with the fire lines. All the old lines were so cleared during the year. The two works thus help each other, and as long as fire conservancy is carried on the demarcation lines will be well kept up.

17. The work done under this head is summarized below :—

Statement shewing the Work done under Head VIII A., Demarcation, during the year 1879—80.

Names of Forests.	Cutting lines.						Clearing lines.						Total.			Remarks.
	Miles.	Furlongs.	Yards.	Cost.			Miles.	Furlongs.	Yards.	Cost.						
Dubare ...	...	...	...	...	...	...	5	..	160	25	14	0				
Devamurchi ...	...	...	...	...	...	...	22	1	65	145	9	4				
Mavukal ...	...	...	...	...	...	...	15	5	108	88	4	0				
Arkerenad ...	4	5	150	76	6	8	5	6	47	43	0	0				
Hatgatnad ...	4	4	...	74	9	4	30	3	110	288	5	4				
Nalkere ...	...	...	...	...	...	...	23	12	50	171	13	4				
Anekadu ...	15	5	107	65	10	8	30	...	34	84	4	0				
Ganagur ..	...	...	...	...	...	...	38	5	80	113	6	0				
Yedavanad ...	..	...	...	...	...	...	29	7	193	105	11	4				
Total.....	24	7	37	216	10	8	202	3	17	1,066	3	4	1,282	14	0	* This includes the charges incurred in digging pits and fixing posts.
Ghat Forest...	78	5	58	* 892	4	5	1	5	140	4	8	0	896	12	5	
Grand Total...	103	4	95	1,108	15	1	204	...	157	1,070	11	4	2,179	10	5	

18. *Surveys.*—The map of Mavukal Reserve was received in May. Nalkere, Hatgatnad and the southern portion of Arkere have not yet been sent. The proper division between Arkere and Hatgatnad, namely, the Lakshmantirtha river, has however recently been surveyed, and it is hoped the maps of these forests will be received soon.

The Madras Survey Office communicated the true area of Nalkere Forest, which is 25,742·06 acres or short of the estimated area by 49,258 acres This is explained by the fact that the estimate was made before the demarcation line was cut. When this was done, it was found very much less was available than appeared at the first examination of the forests.

19. *Fire Conservancy.*—All the deciduous forests were protected this year. Arkere and Dubare were partial failures, but the measures taken were fairly successful for the other forests. Almost all the failures could be traced to want of care and energy on the part of the Foresters in charge. To be safe the traces have to be burnt before the fire season comes on when the jungle is comparatively green. But as this first burn is incomplete in some parts of the line, it should be gone over again about a fortnight after the first burn, but the Foresters from want of method in their arrangements are apt to put off this second burn till too late. They are also very lax in keeping the fire-guards up to their duty. The inducement of promotion to the man who did best in protecting his forest, other things considered, was held out, but I regret to say no one earned it.

20. The expense of the line per mile as compared with that of last year is given in the accompanying statement :—

Statement shewing the Area of State-forests protected from fire.

Forests.	Area attempted to protect.	Area protected.	Cost per Square Mile.	Cost per Square Mile last year.
Dubare	11,364	9,773	18 0 5	30 11 7
Anekadu	11,507	11,506	20 10 8	18 2 3
Devamurchi	7,569	6,449	61 15 3	29 5 11
Karmad	...	...	.. ..	... ...
Yedavanad	7,838	4,937	41 6 0	47 4 3
Ganagur	5,989	5,828	23 10 9	20 7 0
Nalkere	25,742	24,290	19 10 4	11 3 0
Mavukul	8,188	8,188	44 3 9	31 14 3
Gangvara Sandal reserve	25	25	... ...	... ...
Arkere	...	...	... ...	35 1 0
Hatgatnad	44,627	32,869	16 7 4	... ...
Total.....	122,849	102,865	... ...	... ...

21. During the year sanction has been obtained to entertain another Forester and 18 more Forest Guards for the eastern forests. This extra establishment will make fire conservancy and all other works much easier to carry out. Now that each man has no more than he can do, and knows what ought to be done, there should be no bad failure in future.

22. From the outside there has been less cause for complaint than last year. But some of the villages in North Coorg again fired their udves adjoining the State-forests, and considerably endangered the latter. In 3 or 4 cases our own people had to go and put them out, and received no aid from the ryots. In this Office letter No. 810—316 of the 12th December 1879 to the address of the Superintendent of Coorg reporting on the need for fresh forest legislation in Coorg, the necessity for obliging the villagers to keep fire out of their forests is put forward.

PLANTATIONS.

23. *Karmad* (Teak).—As last year, the work was almost limited to weeding, girdling jungle trees and planting up vacancies. With the heavy monsoon the plants made a good start. Unfortunately however in spite of precautions fire got into the plantation on the 28th of February 1880. I was myself camped within 2 miles of the plantation on the morning of the day, and received the report at the camp to which I had moved in the afternoon. From the enquiries which I made on the spot there appeared no doubt that fire was put in the middle of the plantation and did not come from the outside; but there was no evidence as to who had put it there beyond mere suspicion. It was alleged that fire went right through the plantation in two hours' time. It is hoped however that much injury has not been done to the plants, the large plants have merely been scorched, and it is only a small percentage of the young plants which have been actually burnt, but even these when cut down to the ground will throw up a strong shoot.

24. The expenditure on the plantation was as follows :—

	Rs.	As.	P.
For weeding	918	7	4
" nursery work	35	8	0
" opening a sandal reserve ..	76	12	0
" fencing	7	12	0
" collecting seeds	15	5	8
" lining and digging pits.. ..	71	1	0
" planting	8	4	0
" miscellaneous sundries..	43	2	0
Establishment	84	2	6
Total Rs.	1,260	6	6

25. *Kutampole* (Teak).—No work was done. The plantation was inspected in October 1879, but so few plants were found growing that it was not thought worth-while to do anything to them.

26. *Gangavara* (Sandal).—No new clearing was made. The whole of the old plantation was supplied up with plants and seed in each pit. In the open parts dál seed was sown around the young plants with the sandal seed, in order that the dál plant might act as a nurse to the young sandal plant, by shading it during the hot weather. The seeds germinated well for the most part, and things looked hopeful during the monsoon, especially in the unshaded portions, where the seedlings were not injured by drip from the jungle trees. But in the shaded parts many seedlings rotted off. Noticing this it has been decided to try clean felling and burning before planting and a new pit has been accordingly prepared for this year's planting. A notable drying up of the plants in the more open parts took place in December and January, the ones which stood the heat best being those reared from seed put down on the spot with the nurse seed. These would have been more successful had the holes been made deeper. The latter were unfortunately much skimped, so that the roots of the young plant could not get down sufficiently to find moisture in the hot weather. This year great stress is being laid on this point.

27. Since the early rains in the beginning of April there has been a still further fading off of plants of nearly 50 per cent. How this is to be accounted for is

not quite clear. It is supposed to be some latent acidity in the soil which is brought out by the rain. But probably deep cultivation would remedy this evil too.

28. Besides the sowing of togari (dal) seed with the sandal plants, many other means were taken to shade the plants such as surrounding them with open wicker work cylinders, all of which were more or less successful in helping the plants to get through the hot weather.

29. In Gangavara now, besides the old plants out of 35,500 supplies put in, 3,026 plants have got through their troubles and seem likely to persist now.

30. The expenditure on the plantation was as follows :—

	Rs.	As.	P.
For cutting and clearing jungle and weeding ..	226	6	0
„ cutting kadang	53	13	4
„ shading plants	25	10	4
„ planting seedlings	32	10	0
„ nursery works	72	13	8
„ making pits	58	14	0
„ putting and repairing fence	37	6	0
„ constructing pound	3	15	0
„ collection of seeds	38	2	8
„ sundry	93	3	8
Establishment	459	6	5
Total Rs.	1,102	5	1

31. The state of the plantation is at present 25 acres of half stocked land, a small portion at the eastern end being nearly sufficiently well, the rest being very patchy. The whole must be supplied up again during the ensuing season. The results so far cannot be called satisfactory, much better were hoped for this year. Ranger Bopranna took an interest in the matter, and no efforts were spared to make the operations successful. The fault of skimping the holes was one of system, originating from the old dibbling half measures which have obtained heretofore. It is hoped now with large deep holes and good nurses to rear the plant more successfully.

32. In a small experimental sandal plantation at Fraserpet several expedients were adopted, with more or less success, for shading the plants during the hot weather. The land being open, there was no considerable damping off of plants during the monsoon. But in spite of all the means tried the drying up of plants went on steadily during every month of hot weather, and even after the early showers in April. Out of 2,451 plants which had come up and appeared to be thriving at the end of the monsoon, only 906 have well established themselves.

33. The expenditure on this plantation was Rs. 197—2—6 classified as follows :—

	Rs.	As.	P.
For digging pits	11	4	0
„ fencing	17	0	0
„ weeding	28	4	0
„ nursery works	38	4	0
„ planting	15	0	0
„ shading plants	19	8	0
Establishment	67	14	6
Total Rs.	197	2	6

34. This plantation is kept up entirely as an experimental one, being at the headquarters of the North Coorg Ranger, it receives a good deal of attention, different methods can be easily tried and results properly noted. It is proposed therefore to keep it up, and to continue experiments. The necessity for deeper cultivation, and the providing of nurses is proved by last year's operations here.

35. It has not been possible to depute a subordinate to spend some time at the sandalwood plantation in Madras as suggested in para 6 of the orders of the Government of India on last year's Report, these orders having only been received last

January, since which time the establishment has been too busily employed to spare any one for the purpose. The suggestion will however be attended to as soon as practicable.

36. *Hirekere* (Sandal).—This is a new plantation opened during the year in the outskirts of the Jainkalbetta Forest about 3 miles from Ramaswamikanave where there is a forest bungalow. A tank is situated close by containing ample water for nursery purposes, and the jungle has many sandal trees in it, proving that the soil is suitable for its growth. So that it seems adapted in all ways for a plantation.

37. A ditch was dug round what will be the permanent boundary of the plantation, and a few acres was sown up; but this operation was not well carried through, the shade left being far too thick, and only a minority of the seed germinated, of these a good proportion are doing well.

38. A clearing of 14 acres has been made this hot weather, which it is intended to plant up in deep holes with nurses during the ensuing rains.

Being more accessible than Gangavara, (8 miles from Frasrpet) I have hopes that we shall be more successful here.

39. Small clearings for planting sandal have been made at each forest station so that each Forester may be employed on the work. The following is a list of these:—

In Ganagur	Forest	..	..	..	Kargode.
,, Yedavanad	do	..	..	..	Hudugur.
,, Dubare	do	..	..	.	Bungalow.
,, Devamurchi	do	..	..	..	Maldare.
,, Arkere	do	..	..	..	Tittimatti.
,, Hatgatnad	do	..	..	..	Harmad.
,, Nalkere	do	..	..	..	Nagarhole.

By having these close to the Forester's stations proper supervision ought to be secured.

40. *Mercara Fuel Plantation.*—The question of the supply of fuel to Mercara has long been recognized as a serious one. Most of the Government forests within 15 miles of Mercara having been given away for coffee cultivation, the supply is becoming more and more precarious; when therefore during last monsoon, the Superintendent asked me whether I could undertake the experiment of raising some Australian Wattle (*Acacia deal Bata*) and indicated a piece of land which was available for the purpose, it occurred to me that a small beginning to a fuel plantation might be made.

To this the Chief Commissioner's consent was obtained and nurseries of casuarina, wattle, jack, navaladi (*Vetex alata*), two or three kinds of Australian gums, and other trees have been raised. The land, about 30 acres, has mostly been pitted up and will be planted this season. In the neighbourhood there is a large quantity of land covered with lanthana, a shrub which by overrunning the country to the exclusion of every thing else is a perfect scourge. If this land can be obtained and planted up, instead of being the eyesore it is now, will present a pleasing background to the station, and moreover will become a source of remuneration to the Government. Besides the value of the fuel and timber produced on it, portions of it, after giving a crop of this kind, will be available for coffee cultivation. Unfortunately however it is found difficult to get any considerable quantity of it, divided up as it is in little holdings, belonging to natives, who will not part with them, except at prohibitive prices.

41. The experiment in rearing the wattle is likely to be successful, some of those put down in the nurseries at the end of last monsoon are over 7 feet high. Expecting them to be too large to transplant, a fresh lot of seed was put down in January, the seedlings thus raised are now ready to transplant.

Reproduction Coupes.

42. About 10 acres of the thirty-acre coupe in Dubare and the thirty-acre coupe in Nalkere was treated by dibbling in seed, but this seed failed to germinate probably because the conditions of light were not right. The coupe at Nalkere has been enlarged, and a nursery formed of teak, honne, bité and nandi. The coupe will be planted up in strips of 12 feet wide leaving strips of jungle 15 feet wide. A similar coupe of about 40 acres has been opened in Anekadu. If we can get the right conditions of light and air, this system will it is hoped do well. That a sufficient amount of timber can be obtained in this manner to make the operations pay will be seen below. The

only doubt is whether the planted strips will require much attention in after years; if they did, operations would become too extended for the available labor. But teak once rooted requires very little help, and the uncultivated strips will keep the ground to a certain extent shaded and keep down weeds. It is possible that broader uncultivated strips might be left, and still a fairly complete stock obtained. This plan has been advocated by Mr. Brandis for the Burmah Forests and will be tried here.

43. The expenditure on the coupes has been as follows, not counting felling charges which go under Head I (*a*):—

	Rs.	A.	P.
Anekadu "Coupe"	112	5	0
Nalkere do	129	0	0
Dubare do	139	5	8
Yedavanad do	31	4	0
Jainkal do	13	3	4
Total....	*425	2	0

44. Under instructions of Captain vanSomeren, the late Conservator of Forests, Mysore and Coorg, the collecting of minor forest produce was undertaken during the year by *Amani*. As it was found not to be profitable, the right of collecting them has been sold by public auction this year.

Roads and Bridges.

45. The road from Dubare bungalow to Maldare was made trafficable for bandies, but was not finished owing to press of other work. A line has been determined for a road from Maldare to Tittimatti, which will be about 10 miles long instead of 15 miles which is now the shortest road.

The following is an abstract of the cost for works done on various roads:—

	Rs.	A.	P.
For making and repairing bandy roads in Nalkere Forests ..	70	5	4
Do Dubare-Maldare road	137	0	6
Do Dubare-Bairanhalla road	105	13	4
Do Dubare-Fraserpet road	33	10	4
Total....	346	13	6

Buildings.

46. Maldare hut was completed. The other huts have been repaired. A bungalow at Ramaswamikanave has been made over to the Department. It is a useful inspection lodge for the North Coorg Forests.

The Aramanebáne bungalow has not yet been finished, partly owing to press of other work, and partly owing to the Forester's conduct. This man having absented himself from work for more than two months was dismissed. The expenditure on buildings was as follows:—

	Rs.	A.	P.
For constructing a bungalow and godowns at Maldare ..	266	3	2
" repairing bungalow and godowns at Nalkere ..	66	5	6
" constructing a bungalow, &c., at Aramanebáne ..	106	4	0
" a Forester's hut at Kutompole	20	0	0
" repairing bungalow and godowns at Dubare ..	59	13	4
" constructing bullock shed at Attur for Government bullocks	52	13	0
" repairing Karmad Cutcherry house	7	0	0
" constructing a bullock shed at Mercara Depôt ..	3	0	0
" do a cattle pound at Gangavara	0	13	4
Sundries	0	4	0
Total...	582	8	4

II—3. YIELD AND WORKING.

47. *Timber.*—Besides prescribed statements 53, 54 and 55 appended, a statement is herewith given shewing the amount of materials extracted from the coupes. It was again found difficult to detach sufficient labor for felling, owing to the call on the limited supply for fire conservancy.

* Out of Rs. 425—2—0, Rs. 181—0—4 was charged under Head VIII *d*. "Plantations." In future it is intended to charge all the planting work in the coupes to this head.

48. Statement shewing the quantity of materials felled in the coupes and sent to Depôt.

Description of Materials.	Felled.		Sent to Depôt.		Name of Coupes.
	No.	C. ft.	No.	C. ft.	
Teak logs	160	2,921	150	2,215	Nalkere Coupe.
Honne do	30	318	28	271	Do
Bité do	18	220	18	220	Do
Teak do	3	66	2	37	Dubare.
Bité do	4	60	2	67	Do
Honne do	5	75	5	75	Do
Junglewood logs	31	434	24	278	Do
Do posts	3	...	...	...	Do
Teak do	12	250	11	210	Anekadu Coupe.
Honne do	60	1,021	59	996	Do
Bité do	2	21	2	21	Do
Junglewood do	56	1,029	52	979	Do
Bamboos do	19,000	...	18,800	...	Do
	19,384	6,415	19,153	5,339	
Honne	12	156	...	...	Attur Coupe.
Total.....	19,396	6,571	19,153	5,339	

49. With the exception of the trees felled in the coupes, and for special indents by the Public Works Departments, all the timber was obtained from dry and fallen trees. Working was commenced in Yedavanad Forest, 7-10 miles north of Fraserpet, in which no fellings have taken place for some years; a large number of dry and fallen trees were found, and those sent to depôt were all found in a limited space of a square mile. It is intended to operate on a fresh bit in the ensuing year, and it will be several years before the whole forest has been gone through in this way. The timber from this forest was sent to Fraserpet Depôt. A small portion was also sold from a depôt formed in the forest.

50. The timber from this forest, and from Dubare Forest, was brought in by petty contractors fairly satisfactorily. But although higher rates were offered no contractor could be got to bring timber to Mercara Depôt. Neither could any arrangement become to, to engage carts by the month. Sanction was therefore obtained to buy six carts and bullocks for this service. It was unfortunately not till late in the season before they could be got to work, as no stone was left unturned to avoid the measure, the purchase of live stock being considered as a rule inadvisable, involving as it does such an amount of supervision to keep the animals at work and in good condition. The service is now working pretty well, and although it may seem that a large saving is not made, it must be considered that without this arrangement it would not be possible to supply the Mercara Depôt at all in an adequate way.

51. The following statement shews the work done, including one pair of bullocks employed to carry the Assistant Conservator's tents. The amount of the earnings of this pair was refunded to "Revenue" under head V *b:*

From which jungle carted.	To which depôt.	Description of materials.	No.	C. ft.	Estimated hire if carted on contract.	Remarks.
Anekadu Jungle ...	Mercara ...	Bamboos ...	3,795	...	121 7 0	At 4 Rs. per 125.
	do	Teak logs ...	3	44	11 0 0	At 4 As. per c. ft.
	do.	Honne do ...	20	326	81 8 0	do do
		Junglewood ...	10	157	39 4 0	do do
			3,828	527	253 3 0	
Add amount of earnings of the tent cart.	...	...	...	...	105 0 0	
					358 3 0	

Note.—The cost of 6 carts and 6 pairs of bullocks was Rs. 35 and Rs. 548—8—0 respectively.

52. The new contractor Kitchetti worked well for the Húnsúr Depôt, although it was rather late in the year before he set to work in good earnest. He has agreed to take on the contract for the coming year at rather better terms for Government.

53. The experiment is going to be tried of getting some sawers up from the Malabar coast, to saw up the large trees felled in the coupes in Nalkere. If it succeeds, it is expected that a good profit will accrue from the sawn timber. The road from this forest has been considerably improved during the year by skirting round a hill instead of going over it. It is capable of still further improvement, which will be effected in the coming season.

54. The transport from Dubare Forest to Fraserpet by petty contractors not having proved very satisfactory, the river Cauvery which bounds the forest on the west for two miles, and flows past the Fraserpet Depôt about 10 miles below, has suggested itself as a ready means of transmission. The river being rather too dangerous in places, for men to put down rafts, it is intended to throw a float across at Fraserpet to stop timber. By this means timber thrown into the river at the forest made floatable by tying on large hollow bamboos will be stopped and landed at Fraserpet. Sanction has been obtained to the necessary expenditure, and it is hoped to get the float ready by the beginning of the monsoon.

55. *Sandalwood.*—Three new contractors were engaged, and did good work, in fact brought in so much more than they contracted for that they had to wait till April before they could be paid up for a portion of the collections. Rs. 5,477—13—3 was spent on collections, and 101 tons were sold for Rs. 35,890—9—10, giving the low average of Rs. 355—5—8 per ton. This was principally on account of the late date of the sale (February) after the big sales in Mysore which glutted the market and rendered competition poor. Having a large stock on hand the sales of 1880--81 can be placed at an earlier date *i. e.* before the Mysore sales.

56. The valuation of the sandalwood growth in the Province was carried on during the rainy season by the Probationer, but had to be stopped as soon as the working season commenced. It is about to be taken up again now that the press of work is over, and when completed the results will be submitted. The enumeration and classification of some large villages in North Coorg the results of which are given below, proves that there is a large number of dry and over mature trees to be extracted in, the more out of the way parts, sufficient to supply the kothi for some years without touching the growing trees, and there is little doubt we are working within the possibility.

Name of Villages.	Dry.	Trees which can be extracted within 10 years.	Which can be felled from 10 to 20 years.	Which can be felled from 20 to 30.	Which can be felled from 30 to 40.	Which can be felled from 40 to 50.	Which can be felled after 50 years' seedlings.	Total.	Trees counted in 1874 as per old lists.
Nidatagrama ...	74	131	146	171	176	160	458	1,316	1,077
Hasalli	22	47	57	59	55	50	157	447	...
Haravalli	16	13	31	54	27	31	55	207	336
Sunti	16	17	82	99	99	65	308	686	830
Herekora	8	51	75	84	77	46	226	567	536
Chammapura ...	1	2	2	1	2	...	...	8	10
Nakalgad	1	4	6	15	17	12	20	75	67
Hosur	7	16	24	27	30	31	85	220	229
Kanagal	6	42	27	50	48	65	142	380	216
Bageri	5	47	42	54	55	46	67	316	258
Wulai	27	39	59	66	73	66	154	484	...
Hatralli	9	12	34	60	57	22	93	287	...
Hemmani	20	49	74	90	84	68	97	482	76
Arigudlu	47	100	158	200	178	138	366	1,187	...
Jambur ...	52	191	202	245	250	175	1,882	2,997	...

Names of Villages.	Dry.	Trees which can be extracted within 10 years.	Which can be felled from 10 to 20 years.	Which can be felled from 20 to 30.	Which can be felled from 30 to 40.	Which can be felled from 40 to 50.	Which can be felled after 50 years' seedlings.	Total.	Trees counted in 1874 as per old lists.
Nagarur	56	263	249	267	263	205	655	1,958	1,650
Masagadu	73	243	311	514	403	330	2,232	4,156	2,226
Chaudlu	37	189	249	323	359	346	1,792	3,295	2,450
Heblale	31	55	113	144	216	205	297	1,061	...
Banageri	6	38	38	46	76	81	220	505	...
Guddi Hosur	..	...	1	4	12	31	191	239	...
Mulsogi	26	61	110	202	182	261	1,458	2,300	...
Uliguli	55	36	34	71	94	547	3,107	3,944	...
Haradur	6	5	18	4	53	88	322	496	632
Total.....	601	1,651	2,142	2,830	2,936	3,068	14,384	27,613	

57. Out of these 601 dry trees from 25 to 30 tons would be obtained, and the total number of trees by the old list, which is very incomplete gives 212,357 trees, or about 9 times the number counted as per above list; this would give say, 5,409 dry trees or from 225 to 270 tons, or enough to supply our kothi for more than two years.

III. UNRESERVED OR DISTRICT FORESTS.

58. One hundred and ninety-six applications for coffee, &c, were sent for report which with the 16 pending from last year makes a total of 212, of these 72 were disposed of.

59. The ryots of North Coorg, especially of Ramaswamikanave Hobli, have made complaints regarding their not being allowed to fell in the reserved forests. The complaint is an unreasonable one, as at the time that the demarcation was made, large tracts of jungle were excluded as village forests for them. Recently under the orders of the Superintendent, lists have been drawn up by the Subedars and their subordinates shewing (1) the quantity required by each plough and the total amount of materials required for all the ryots; and (2) the total number of trees of different kinds growing in the udves. These lists shew so many absurdities if looked into, that they are useless in settling the matter. Unfortunately the first lists are likely to be regarded by the ryots as a standard of what ought to be given them; whereas framed as they are on data given by the complainants themselves, they are most extravagant. The practical way of settling the matter seems to be to value the timber on the different village forests, and to have lists of requirements framed on more reliable data. These measures have been recommended to the Superintendent.

IV. GENERAL REMARKS.

60. The Mattigod case mentioned under this head in last year's report has been settled with the Chief Commissioner's sanction, by a lump sum payment of Rs. 6,714—4—6, it having been found impossible to settle the matter according to the terms of the decree. Had the matter been taken into court again, the plaintiff would have got much more than he did. The Department is now released from all claims on the jungle, and the relief is great. The greater amount of good timber from Nalkere which can now be brought in will soon repay Government the loss sustained.

61. *Exotics.*—Some seeds of the scented eucalyptus (*Eucalyptus Citriodora*) and *eucalyptus hæmastima, tristania conferta* (Australian box tree) *and catalpa speciosa* were sent up by the Assistant Conservator of Nundydroog, and have been put down in the Mercara Plantation nurseries. They have all germinated freely except the last, of which only three came up and will be planted out in favorable situations in the plantation. A few Pithecolobium saman seeds were put down in January, and germinated freely, the plants being now 10-15 inches high. Good accounts are given

by the various coffee planters to whom seed was distributed. The Australian Wattle has already been spoken of. Unfortunately only the Deal bata could be procured; the A. pycrentha the bark of which is described as useful on account of the large amount of tannin it contains could not be got. A few plants of cinchona will be obtained if possible to plant out in the plantation. A nursery for cinchona has also been made, in the management of which Mr. Richter has kindly given us the benefit of his experience. It is doing well so far, the seeds having germinated freely.

The casuarina beds will help to pay for the nurseries, as a few orders have been registered for plants at Rs. 15 a 1,000.

62. I have already spoken of Mr. Muttanna's work in para 6, I consider it very satisfactory, and his name has already been sent up for promotion.

63. Rangers Boppanna and Madaiya have worked well, and on the whole I think more good work has been done in the forests than in former years since I have had charge. There is still much to be desired in the arrangements made for getting and keeping labor, and it is feared the Foresters, as a rule, do not feel that interest in their work which one would wish that they should. Did they do so we should be able to shew a better out-turn, and the work would be more successful. It was with much regret that I was obliged to refuse to give the sanctioned rise of pay to any one of them, but it is hoped it will be earned before long. During the year arrangements were made for the Foresters to pay a percentage of their salaries into the Savings Bank to be delivered to them when they retire with interest on the Assistant Conservator's order, any difference between the Forester's and the Assistant Conservator's accounts to be made good from this. These deposits will be allowed to accumulate to one year's pay which with interest will be a nice little sum for the Forester to receive when he retires.

64. The Office Establishment has worked well. The system of accounts in which there have been again some changes, has been thoroughly mastered by my Head Writer Shama Rao, and the 3rd Writer David Francis, and the Deputy Writer Rama Rao has kept the correspondence, &c., well up to date. I am glad to say that the biennial increases to the pay of the Head and Deputy Writers have been sanctioned.

F. B. DICKINSON,

Dated 27th June 1880. *Assistant Conservator of Forests, Coorg.*

Form No. 45.

FOREST DEPARTMENT, COORG.

Area of Reserved Forests in Coorg Division for the year 1879—80.

Division or Range.	Names of Forests.	Area on 1st April 1879.		Addition during the year.		Excluded or transferred to other Head.		Total on 31st March 1880.		No. and Date of Notification of Additions and Transfers, &c.	Remarks.
		Square Miles.	Acres.	Square Miles.	Acres.	Square Miles.	Acres.	Square Miles.	Acres.		
	Dubare	18	11,363	...	...	...	...	18	11,365		(a) Excluded to be thrown open for coffee cultivation.
	Devamurchi... ...	18	11,286	...	...	(a)6	3,914	12	7,569		
	Mavukal	13	8,188	...	...	...	...	13	8,188		
	Arkerenad	5	2,989	...	...	2	1,404	2	1,085		} Do do do
	Hatgatnad	68	43,514	...	...	...	...	68	43,542		
	Nalkere	117	75,000	...	...	...	...	40	25,742		
	Urti and Kerti ...	...	...	16	10,240	...	...	16	10,240		Not estimated.
	Chembu and Quinad ...	10	6,400	...	...	...	...	10	6,400		Estimated.
	Anekadu	17	11,508	...	...	...	...	18	11,507		The area shewn to be on 31st March 1880 differs from the area intimated by the Survey Department in 1877.
	Ganagur	16	10,188	...	...	...	...	9	5,989		
	Yedavanad	12	7,869	...	...	...	...	12	7,839		
	Kattipura	1	585	...	...	...	...	1	585		
	Sandal koti	...	275	...	...	...	..	...	276		This is according to a list received from Central Office in November 1879.
	Allur	...	...	...	395	...	...	1	395		
	Total Rs.....	295	189,166	16	10,635	8	5,118	220	*140,722		

* Of this the surveyed area is 129,202·09 acres.

Form No. 45.

Area of Unreserved Forests in Coorg Division for the year 1879—80.

Division or Range.	Names of Forests.	Area on 1st April 1879.		Added during the year.		Excluded or transferred to other Heads.		Total on 31st March 1880.		No. and Date of Notification of Additions and Transfers, &c.	Remarks.
		Square Miles.	Area.	Square Miles.	Area.	Square Miles.	Area.	Square Miles.	Area.		
Coorg Range.				Nil.							

Form No. 46.

Area of Plantations for 1879—80.

Division.	Name of Plantation.	On 1st April 1879.				During 1879—80.				On 31st March 1880.				Remarks.
		Area.	Total Cost.			Area.	Total Cost.			Area.	Total Cost.			
	Karmad	229	19,183	11	8	...	1,260	6	6	229	20,444	2	2	Teak.
	Kutampole	152	7,246	...	...	...	...	...	...	152	7,246	0	0	do
	Karepura	24	1,950	...	...	...	...	...	...	24	1,950	0	0	do
	Moreara Fuel Plantation	...	...	...	...	...	980	3	4	...	980	3	4	Fuel Plantation.
	Nalkere "Coupe"	...	...	...	...	10	104	4	0	10	104	4	0	Teak.
	Dubare "Coupe"	...	...	...	...	4	27	13	4	4	27	13	4	do
	Gangvara	25	2,479	9	5	31	1,102	5	1	[illegible]	3,581	14	6	Sandal.
	Fraserpet Experimental Sandal Plantation.	...	129	12	6	3	197	2	6	3	[illegible]	15	0	do
	Vadrange	50	438	...	...	...	...	...	...	50	438	0	0	do
	Herikere Sandal Plantation... ...	...	...	...	...	21	620	7	11	21	620	7	11	do
	Yedavanad do	...	...	...	...	3	30	0	0	3	30	0	0	do
	Ane Kadu do	...	...	...	...	11	48	15	0	11	48	15	0	do
	Bamboo Kadu do	...	...	...	...	7	39	6	8	7	39	6	8	do
	Dubare do	...	...	...	...	3	14	12	0	3	14	12	0	do
	Yelavirahame (Kargod)	...	...	...	...	2	15	8	10	2	15	8	10	do
	Maldare do	...	...	...	...	5	46	12	0	5	46	12	0	do
	Total	480	31,427	1	7	100	4,488	1	2	580	35,915	2	9	

Form No. 47.

FOREST DEPARTMENT, COORG.

Area of Forest Tracts protected from Fire during the dry season of 1879—80.

Division.	Forest Tracts.	Up to 31st May 1879.				During dry season of 1879—80.						Total Cost up to 31st May 1880.			Year when Protection commenced.	Remarks
		Area actually protected.	Total Cost.			Area attempted to be protected.	Failures.	Actually protected.	Amount expended.							
Coorg Division.	Dubare	10,916	1,272	0	0	11,364	1,591	9,773	299	0	0	1,571	0	0	1877	
	Anekadu	10,980	2,332	0	0	11,507	1	11,506	336	0	0	2,668	0	0	1876	
	Devamurchi	11,169	518	0	0	7,569	1,120	6,449	784	0	0	1,302	0	0	1878	
	Karmad	229	159	0	0	...	...	...	...	0	0	159	0	0	1877	
	Yedavanad	6,844	598	0	0	7,838	2,901	4,937	300	0	0	898	0	0	1878	
	Ganngur	10,184	318	0	0	5,989	161	5,828	106	0	0	424	0	0	1878	
	Nalkere	73,673	463	0	0	25,742	2,452	23,290	823	0	0	1,286	0	0	1878	
	Mavukal	5,458	408	0	0	8,188	...	8,188	513	0	0	921	0	0	1878	
	Gangvara Sandal Reserve ...	25	49	0	0	25	...	25	3	0	0	22	0	0	1877	
	Arakere	...	165	0	0	...	...	...	...	0	0	...	0	0	1878	
	Hatgatnad	...	...	0	0	*44,627	11,758	32,869	1,339	0	0	1,504	0	0		* This includes Arakere Forest.
	Total.....	129,478	6,252	0	0	122,849	19,984	102,865	4,503	0	0	10,755	0	0	...	

Charged in previous year Rs.....	5,804	0	0
Do in 1879—80 "	4,626	0	0
Do up to 31st May 1880. " ...	325	0	0
Total	10,755	0	0

Form No. 48.

Prosecutions for Breaches of Forest Rules during 1879—80.

Forest Division and Civil District.	Injury to Forest by fire.		Unauthorized felling appropriation of wood and minor Forest produce.		Grazing without permission or in tracts in which grazing is prohibited.		Other Offences.		Total.				Remarks.
									Prosecutions.		Convictions.		
	Cases.	Persons	Cases.	Persons	Cases.	Persons	Cases.	Persons	Cases.	Persons	Cases.	Persons	
South Coorg ...	...	...	2	2	...	...	...	...	2	2	1	1	1 Released.
North Coorg ..	...	...	2	16	...	...	...	...	2	16	1	3	10 persons do, 3 persons being minors.
Total.. ...	...	...	4	18	...	...	...	...	4	18	2	4	

Form No. 49.
FOREST DEPARTMENT, COORG.
Annual Summary of Revenue and Expenditure during 1879—80.

	Budget Heads.	Amount.			Remarks.
	REVENUE RECEIPTS.				
I.	Timber and other Produce removed from the Forests by Government Agency—				
	(a) Timber	9,133	1	2	
	(b) Firewood and Charcoal	1,474	15	0	
	(c) Bamboos	1,309	12	3	
	(d) Sandalwood	35,895	1	10	
	(e) Other minor produce	293	14	3	
II.	Timber and other Produce removed from the Forest by Consumers—				
	(a) Timber...	4,728	0	0	
	(b) Firewood and Charcoal	11	12	0	
	(c) Bamboos	838	0	7	
	(e) Other minor produce	1,121	8	0	
	Cardamoms	38,672	4	11	
III.	Confiscated wood	14	1	[illegible]	
V.	(a) Fines and forfeitures	1	8	0	
	(b) Refunds	...	...	...	
	(c) Other sources	8,291	15	2	
	Total Rs	1,01,785	14	2	
	EXPENDITURE.				
	A. Conservancy and Works.				
I.	(a) Timber	9,842	15	5	
	(b) Firewood	1,394	4	0	
	(c) Bamboos	496	3	6	
	(d) Sandalwood	5,477	13	3	
	(e) Grass and minor produce	269	6	2	
VI.	(a) Purchase of cattle	...	...	...	
	(b) Feed and keep of cattle	181	15	0	
	(c) Plants, Tools and Instruments	603	13	8	
VII.	(a) Roads and Bridges	346	13	6	
	(b) Buildings	562	8	4	
VIII.	(a) Demarcation	2,179	10	5	
	(d) Plantations	4,488	1	2	
	(e) Protection from fire	4,626	0	6	
	(f) Other works	...	...	...	
IX.	(a) Refunds	...	...	...	
	(b) Law Charges	5	13	0	
	(c) Other Charges	47	7	9	
	Total A Conservancy and Works.....	30,542	13	8	
	B Establishment.				
I.	Salaries—				
	(b) Superior Officers	7,021	15	[illegible]	
	(c) Forest and Depôt Establishment	10,015	7	8	
	(d) Office Establishment	2,297	12	4	
		19,335	3	1	
II.	Travelling Allowances—				
	(b) Superior Officers	2,319	8	0	
	(c) Forest and Depôt Establishment	1,310	10	7	
	(d) Office Establishment	334	9	5	
		3,964	12	0	
III.	Contingencies—				
	(a) Stationery	52	15	4	
	(b) Carriage of Tents	328	6	10	
	(c) Rents, Rates and Taxes	220	0	0	
	(e) Official Postage	276	12	6	
	(f) Sundries	444	6	0	
		1,322	8	8	
	Total B Establishment Rs.	24,622	7	9	
	Add A Conservancy and Works.....	30,542	13	8	
	Grand Total Expenditure.....	55,165	5	5	

CALCUTTA,
12th July 1880.

Countersigned,
A. G. HOME,
Asstt. Comptroller General, (Forests.)

F. B DICKINSON,
Asstt. Conservator of Forests, Coorg.

Form No. 50.
Account Current for the year 1879—80.

Cr. *Dr.*

To Cash Balance on 1st April 1880...	14	0	0	14	0	0	By Expenditure—								
							under A	30,542	13	8					
							under B	24,622	7	9	55,165	5	5		
„ Revenue received	101,785	14	2	1,01,785	14	2									
„ Forest Cash Remittances ...	53,108	13	9	53,108	13	9	„ Forest Cash Remittances ...	1,01,788	1	0	1,01,788	1	0		
„ Advances Recoverable	24,908	4	6	24,908	4	6	„ Government of Madras ...	195	12	10	195	12	10		
							„ Advances Recoverable ...	22,667	13	2	22,667	13	2		
„ Suspense Account	14	0	0	14	0	0	„ Suspense Account	14	0	0	14	0	0		
							„ Closing Balance on 31st March 1880	...	...	...	...	...	...		
Total				1,79,831	0	5	Total.....				1,79,831	0	5		

CALCUTTA,
12th July 1880.

A. G. HOME,
Assistant Comptroller General, (Forests.)

Form No. 51.
FOREST DEPARTMENT, COORG.

Statement of Outstandings and Liabilities on account of Contractors and Disbursers for 1879—80.

Divisions.	Department Debtor. At commencement of year.	Department Debtor. Recoveries in cash and value of supplies and work done during the year.	Department Debtor. At close of year.	Department Creditor. At commencement of year.	Department Creditor. Payments made during year.	Department Creditor. At close of year.	Balance due. To Department (Outstandings).	Balance due. By Department (Liabilities.)	Remarks.
Coorg Forest Division.	...	24,908 4 6	24,908 4 6	2,421 3 3	22,667 13 2	25,089 ... 5	180 11 11	...	
Total.....	...	24,908 4 6	24,908 4 6	2,421 3 3	22,667 13 2	25,089 ... 5	180 11 11	...	

CALCUTTA,
12th *July* 1880.

A. G. HOME.
Asstt. Offg. Comptroller General, (Forests.,

Form No 52.

Annual Statement of Outstandings on account of Revenue during the year 1879—80.

Division.	Particulars.	Outstanding at the commencement of the year.	Value of sales and other Revenue during the year.	Total.	Amount realized during the year.	Balance due to the Department at the end of the year.	Remarks.
	I. (a.)—Timber	222 4 9	9,517 7 0	9,739 8 9	9,133 1 2	606 7 7	
	(b.) Firewood and Charcoal ...	25 12 0	1,652 4 0	1,664 0 0	1,474 15 0	209 1 0	
	(c.) Bamboos	1 10 0	1,489 1 3	1,490 11 3	1,309 12 3	180 15 0	
	(d.) Sandalwood	12 8 0	35,890 9 10	35,903 1 10	35,895 1 10	8 0 ...	
	(e.) Grass and other minor produce	... ...	293 14 3	293 14 3	293 14 3	... ...	
	II. (a.) Timber	... ...	4,728 0 0	4,728 0 0	4,728 0 0	... ...	
	(b.) Firewood	... ...	11 12 0	11 12 0	11 12 0	... ...	
	(c.) Bamboos	24 0 0	846 8 7	870 8 7	838 0 7	32 8 0	
	(d.) Grazing	... ...	... ...	... ...	... ...	... ...	
	(e.) Other minor produce ..	899 0 0	222 8 0	1,121 8 0	1,121 8 0	... ...	
	Cardamoms	21,923 3 1	*21,433 11 6	43,356 14 7	38,672 4 11	4,684 9 8	*Includes Rs. 25 10 0 collected in advance.
	III. Confiscated wood	... ...	14 1 0	14 1 0	14 1 0	... ...	
	V. (a.) Fines	... ...	1 8 0	1 8 0	1 8 0	... ...	
	(b.) Refunds	... ...	... ...	... ...	... ...	... ...	
	(c.) Other sources	6,533 0 0	7,293 7 2	13,826 7 2	8,291 15 2	5,534 8 0	
	Total.....	29,641 2 10	83,400 12 7	1,13,041 15 5	1,01,785 14 2	11,256 1 3	

Form No. 53.

Statement of Trees felled during the year 1879—80.

Forest Range.	Locality.	Description of wood.	On hand from previous year. No.	On hand from previous year. Cft.	Felled during current year. No.	Felled during current year. Cft.	Total. No.	Total. Cft.	Disposed of during current year. How disposed of.	Disposed of during current year. No.	Disposed of during current year. Cft.	Closing balance. No.	Closing balance. Cft.	Remarks.
South Coorg ...	Nalkere ...	Teak... ...	...	...	156	...	156	...	Trees squared into logs.	156	...	...	...	
		Honne ...	...	...	36	..	36	...		36	...	...	...	
		Bite	...	...	25	..	25	...		25	...	...	..	
	Mattigod ...	Teak... ...	...	...	6	..	6	...		6	...	...	...	
		Honne ...	...	...	28	...	28	...		28	...	...	...	
		Bite... ...	...	...	2	...	2	...		2	...	...	...	
		Junglewood ...	...	...	53	...	53	...		53	...	...	...	
		Total... ..	...	...	306	..	306	...		306	...	...	...	
North Coorg ...	Anekadu ...	Teak... ...	...	...	11	...	11	...	...	11	...	...	...	
		Honne ..	...	...	122	...	122	...	...	122	...	...	...	
		Bite	...	...	10	...	10	...	...	10	..	...	...	
		Junglewood ...	...	...	69	...	69	...	...	69	...	...	...	
	Attur ...	Teak... ...	...	...	2	...	2	...	...	2	...	...	...	
		Honne ...	...	...	8	...	8	...	...	8	...	...	...	
		Bite ...	...	...	1	..	1	...	...	1	...	...	...	
		Junglewood ...	...	...	20	...	20	...	...	20	...	...	...	
	Yedavanad ...	Teak... ...	...	...	22	...	22	..	...	22	...	...	...	
		Honne ...	...	...	149	...	149	...	...	149	...	...	...	
		Bite ...	...	...	10	...	10	...	...	10	...	...	...	
		Junglewood ...	...	...	94	...	94	...	...	94	...	...	...	
	Dubare ...	Teak... ...	...	...	8	...	8	...	...	8	...	...	...	
		Honne ...	...	...	64	...	64	...	...	64	...	...	...	
		Bite ...	...	...	15	...	15	...	..	15	...	...	...	
		Junglewood ...	...	...	29	...	29	...	...	29	..	...	...	
		Total.....	...	...	634	...	634	...	...	634	...	...	...	
		Grand Total.....	...	...	940	...	940	...	...	940	...	...	...	

Form No. 54.

FOREST DEPARTMENT, COORG DIVISION.

Statement of logs, sleepers and other scantling cut and exported during the year 1879—80.

Division. Forest Range.	Locality.	Description of Timber and Scantling.	On hand from previous year.		Cut during current year.		Total.		Disposed of during current year.			Closing balance.		Remarks.
			No.	C. ft.	No.	C. ft.	No.	C. ft.	How disposed of	No.	C. ft.	No.	C. ft.	
	Nalkere ...	Teak logs ...	85	3,270	268	6,889	353	10,159	...	284	7,024	69	3,135	
		Junglewood logs ...	14	527	88	2,287	102	2,814	...	57	1,343	45	1,471	
		Total...	99	3,797	356	9,176	455	12,973	...	341	8,367	114	4,606	
	Balumani ...	Teak logs ...	4	93	...	...	4	93	...	...	...	4	93	
		Junglewood logs ...	30	841	...	...	30	841	...	...	...	30	841	
		Do poles ...	244	...	124	...	368	...	...	124	...	244	...	
		Bamboos ...	1,682	...	...	...	1,682	...	...	1,200	...	482	...	
		Firesticks ...	625	...	...	...	625	...	...	...	...	625	...	
		Total...	2,585	934	124	...	2,709	934	...	1,324	...	1,385	934	
	Attur ...	Firewood cart loads.	...	...	2,375	...	2,375	...	...	2,375	...	...	...	
		Total...	...	...	2,375	...	2,375	...	...	2,375	...	...	...	
	Hosurgane ...	Teak poles ...	...	...	1,079	...	1,079	...	...	1,079	...	...	...	
		Total ..	...	...	1,079	...	1,079	...	...	1,079	...	...	...	
	Kesavenkere ...	Junglewood logs ...	13	360	...	...	13	360	...	...	...	13	360	
		Do poles ...	28	...	...	...	28	...	...	...	...	28	...	
		Bamboos ...	7,806	...	...	...	7,806	...	...	6,550	...	1,256	...	
		Total...	7,847	360	...	...	7,847	360	...	6,550	...	1,297	360	
	Anekadu ...	Teak logs ...	16	230	14	301	30	531	...	14	243	16	288	
		Do poles ...	21	...	...	...	21	...	...	2	...	19	...	
		Junglewood logs ...	64	987	199	3,319	263	4,306	...	190	3,343	73	963	
		Do poles ...	156	...	...	...	156	...	...	8	...	148	...	
		Bamboos ...	10,733	...	28,597	...	39,330	...	...	*39,330	...	...	...	
		Firesticks ...	...	...	...	...	...	...	...	...	...	...	...	
		Total...	10,990	1,217	28,810	3,620	39,800	4,837	...	39,544	3,586	256	1,251	
	Dubare ...	Teak logs ...	1	38	9	153	10	191	...	2	27	8	164	
		Do poles ...	8	...	...	...	8	...	...	...	...	8	...	
		Junglewood logs ...	35	703	123	2,331	158	3,034	...	41	669	117	2,365	
		Do poles ...	196	...	125	...	321	...	...	...	...	321	...	
		Bamboos ...	22,487	...	263	...	22,750	...	...	a22,750	...	...	...	
		Firesticks ...	...	...	...	...	...	...	...	...	...	...	...	
		Total...	22,727	741	520	2,484	23,247	3,225	...	22,993	696	454	2,529	
	Kesarhalli ...	Junglewood logs ...	18	492	...	...	18	492	...	...	...	18	492	
		Firesticks ...	...	...	...	...	...	...	...	...	...	...	...	
		Total ..	18	492	...	...	18	492	...	...	...	18	492	
	Sidlingapur ..	Junglewood logs ...	9	174	...	...	9	174	...	...	...	9	174	
		Bamboos ...	...	...	250	...	250	...	...	250	...	...	...	
		Total...	9	174	250	...	259	174	...	250	...	9	174	
	Yedavanad ...	Teak logs ...	...	...	26	249	26	249	...	17	193	9	56	
		Junglewood logs ...	...	...	322	3,550	322	3,550	...	306	3,335	16	215	
		Do poles...	...	...	60	...	60	...	...	...	...	60	...	
		Bamboos ...	...	...	250	...	250	...	...	250	...	...	...	
		Total...	...	...	658	3,799	658	3,799	...	573	3,528	85	271	
	Mattigod ...	Teak logs ...	...	...	59	793	59	793	...	36	623	23	170	
		Junglwood logs ...	...	...	539	11,012	539	11,012	...	224	3,596	315	7,416	
		Total...	...	...	598	11,805	598	11,805	...	260	4,219	338	7,586	
	Udlinamotte Paisari ...	Firewood cart loads.	...	...	21	...	21	...	...	21	...	...	...	
		Total...	...	...	21	...	21	...	...	21	...	...	...	
		Grand Total...	44,275	7,715	34,791	30,884	79,066	38,599	...	75,110	20,396	3,956	18,203	
	Sandalwood ...	Good wood ...	...	...	106¾	...	106¾	...	...	106¾	...	...	...	
		Inferior wood ...	...	...	67½	...	67½	...	...	67½	...	...	...	
		Total...	...	...	174¼	...	174¼	...	...	174¼	...	...	...	
		Grand Total...	44,275	7,715	34,965¼	30,884	79,240¼	38,599	...	75,284¼	20,396	3,956	18,203	

* Of this 10,733 were struck off the accounts *vide* Chief Commissioner's Proceedings No. 150—53, dated 16th May 1880.

(a) Struck off the accounts, *vide* Chief Commissioner's Proceedings No. 150—53, dated 16th May 1880.

Form No. 55.

FOREST DEPARTMENT, COORG DIVISION.

Statement of Timber and other Produce brought to Depôt from the different Divisions during the year 1879—80.

Forests.	Description of Timber.	No. of— Pieces.	No. of— C. ft.	Total of each Division. Pieces.	Total of each Division. C. ft.	Remarks.
Hunsúr ...	Teak logs	320	7,647			
	Junglewood	281	4,939	601	12,586	
Fraserpet ...	Teak logs	18	332			
	Do poles	2	...			
	Junglewood logs	320	5,346			
	Do poles	42	...			
	Bamboos	17,279	...	17,661	5,678	
Mercara ...	Teak logs	5	66			
	Junglewood logs	57	892			
	Bamboos	11,568	...			
	Firewood	21	...	11,651	958	
Tittimatti ...	Junglewood poles	124	...			
	Bamboos	7,750	...	7,874	...	
Maldare ...	Teak poles	1,079	...	1,079	...	
Sidlingapur ...	Bamboos	250	...	250	...	
Hudugur ...	Teak logs	10	65			
	Junglewood logs	126	1,109	136	1,174	
Madapatna Depôt ...	Firewood cart loads	2,375	..	2,375	...	
	Grand Total...	...	...	41,627	20,396	
Remission made by the Chief Commissioner in his Proceedings No. 102—35, dated 2nd May 1879.						
Sampaji ...	Bamboos	800	...			
	Firesticks	900	...			
Mercara Depôt ...	Bamboos	925	...	2,625	...	Used for Departmental work.
	Grand Total...	...	...	44,252	20,396	
Frasrpet Sandal Koti ...	Good wood	106½	...			
	Inferior wood	67½	...	174½	..	
	Total of all...	...	...	44,426½	20,396	

Form No 56.

Annual Account of Timber and other Produce for the year 1879—80.

Particulars.	Pieces. N.	Pieces. C. ft.	Total. No.	Total. C. ft.	Particulars.	Pieces. No.	Pieces. C. ft.	Total. No.	Total. C. ft.
Balance in hand at commencement of the year including bamboos ...	8,525	7,672			Removed by purchasers including bamboos	44,732	11,296		
Received during the year including bamboos	41,627	20,396			Lost or used by the Department—Bamboos and firesticks ...	2,625	...		
					Balance in hand at close of the year including bamboos	2,795	16,772		
Total... ...	...	...	50,152	28,068	Total.....	...	...	50,152	28,068
	Tons.		Tons.			Tons.		Tons.	
Balance in hand					Removed by purchasers... ...	101	...		
Sandalwood	½	...			Lost or used	...	...		
Received during the year ...	174½	...			Balance in hand	73½	...		
Total.....	...	...	174½	...	Total.....	...	...	174½	...

Form No. 57.

FOREST DEPARTMENT, COORG DIVISION.

Statement shewing the Amount realized on account of the different classes of timber and other produce sold during 1879—80.

Description of Timber, &c.	No. of pieces, &c., sold.	Cubic contents.	Amount realized and due on account of sales			Average amount per log, &c.			Average cubical contents of logs.	Average amount per cubic foot.			Remarks.
Teak logs	142	2,790	2,646	12	2	18	10	2	19¼	0	15	2	
Do poles	1,027	...	1,116	0	0	1	1	4	...	...	...	...	
Junglewood logs	656	8,506	4,644	1	1	7	1	8	12¾	0	8	8	
Do poles	244	...	86	0	0	0	5	7	...	...	...	...	
Mattigod	...	...	1,024	9	9	...	...	...	...	...	...	...	
Total.....	2,068	11,296	9,517	7	0	...	...	...	...	...	...	...	
Firewood cart-loads	2,346	...	1,655	7	0	0	11	3	...	...	...	...	
Fire-sticks	45	...	2	13	0	0	1	0	...	...	...	...	
Total	2,391	...	1,658	4	0	...	...	...	...	...	...	...	
Bamboos	40,272	...	1,489	1	3	36	16	6	...	..	...	...	per 1,000.
Total	40,272	...	1,489	1	3	...	...	...	...	..	...	...	
Grand Total... ..	44,732	11,296	12,664	12	3								
Sandalwood.													
Good wood	57½	...	30,308	0	0	527	1	6	...	..	...	...	
Inferior wood	43½	...	5,582	9	10	128	5	1	...	..	...	...	
Total.....	101	...	35,890	9	10	...	...	...	...	..	...	..	
I. e. Grass and other minor Produce			293	14	3								
Grand Total Rs.....			48,849	4	4								
Deduct— Amount due, but not realized during the year ...			1,004	7	7								
Balance Rs.....			47,844	12	9								
Add— Amount realized on account of former year ...			253	15	9								
Total sales on account of sales under Budget Head 1 ...			47,590	13	0								

Form No. 58.

Statement shewing the Amount expended on the different classes of timber and other produce brought to Depôt during 1879—80.

Description of Timber, &c.	No. of— Pieces.	No. of— Cubic contents.	Expenditure. Timber expenses under A I.			Quota of all other Expenditure chargeable against timber.			Total amount chargeable against timber.			Average. Amount per piece.			Cubic contents per piece.			Amount per cubic foot.			Remarks.
Fellings.																					
Teak logs ...	376	8,385	350	7	4	223	3	2	573	10	6	1	8	5	22	0	0	0	1	1	
Do poles ...	1,079	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Junglewood logs ...	1,271	22,499	807	10	9	514	6	3	1,322	1	0	1	0	8	17	0	0	0	0	11	
Do poles ..	309	...	110	15	4	70	10	8	181	10	0	0	9	4	...	...	...	...	...	...	
Firewood ...	2,396	...	441	3	0	280	15	9	722	2	9	0	14	10	...	...	...	...	...	...	
Fire-sticks ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Bamboos ...	29,360	...	194	8	8	1.3	14	6	318	7	1	0	0	2	...	...	...	...	...	...	
Total.....	34,791	30,884	1,904	2.8	1	1,213	2	8	3,117	15	4	0	1	5	...	...	...	...	...	...	
Collections.																					
Teak logs ...	353	8,110	693	3	9	441	8	1	1,134	11	10	3	3	5	23	0	0	0	2	2	
Do poles ...	1,081	...	179	8	0	114	5	1	293	13	1	0	4	4	...	...	...	...	...	...	
Junglewood logs ...	784	12,286	1,234	15	3	786	8	3	2,021	7	6	2	9	3	16	0	0	0	2	7	
Do poles ...	166	...	23	2	0	14	11	8	37	13	8	0	3	7	...	...	...	...	...	...	
Firewood cart-loads ...	2,396	...	762	1	0	485	5	6	1,247	6	6	0	8	4	...	...	...	...	...	...	
Fire-sticks... ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Bamboos	36,847	...	301	10	10	192	2	2	493	13	0	0	0	2	...	...	...	...	...	...	
Total.....	41,627	20,396	3,194	8	10	2,034	8	9	5,229	1	7	0	2	0	...	...	...	..	...	...	
Sandalwood.																					
Good wood ...	106¾	...	3,355	12	0	382	4	3	3,738	0	3	35	0	3	...	...	...	...	...	...	
Inferior wood ...	67½	...	2,122	1	3	241	11	9	2,363	13	0	35	0	3	...	...	...	...	...	...	
Total.....	174¼	..	5,477	13	3	624	0	0	6,101	13	3	17	8	1	...	...	...	...	...	...	

This includes Rs. 109—12—0 paid to Haji Mahomed, Haji Hassan & Moosa, *Vide* Chief Commissioner's Proceedings No. 606 R. F. 191, dated 17th September 1879.

Form No. 59.

FOREST DEPARTMENT, COORG DIVISION.

Statement shewing the Revenue derived from and Expenditure incurred on timber and other minor produce sold to Public Departments from Depôts during the year 1879—80.

Name of Department.	Particulars of supplies.	Amount supplied.	Rate.	Amount of Revenue. Due.	Amount of Revenue. Realized.	Amount of Revenue. Outstanding.	Cost to Forest Department. Timber expenses under AI.	Cost to Forest Department. Quota of all other expenditure chargeable against Timber, &c.	Cost to Forest Department. Total.	Comparison of Revenue and Expenditure. Surplus.	Comparison of Revenue and Expenditure. Deficit.	Remarks.
Public Works Departments.	Nandi log ...	1 13	0 12 0	9 12 0	9 12 0	...	...	...	...	9 12 0	...	
	Junglewood logs ...	5 79	0 5 0	24 11 0	24 11 0	...	...	...	...	24 11 0	...	
	Do ...	1 11	0 5 6	3 12 6	3 12 6	...	...	...	...	3 12 6	...	
	Honne log ...	9 225	0 14 0	196 14 0	196 14 0	...	...	...	...	196 14 0	...	
	Do ...	7 118	0 12 0	84 12 0	84 12 0	...	...	...	...	84 12 0	...	
	Do ...	2 29	0 8 0	14 8 0	14 8 0	...	...	...	...	14 8 0	...	
	Bamboos ...	75 ...	...	3 0 0	3 0 0	...	...	...	...	3 0 0	...	
	Do ...	25 ...	...	1 6 10	1 6 10	...	...	...	...	1 6 10	...	
	Do ...	250 ...	...	6 4 0	6 4 0	...	...	...	...	6 4 0	...	
	Total.....	374 470	...	345 0 4	345 0 4	...	...	...	...	345 0 4	...	

Form No. 60.

Abstract shewing the Value of Timber and of Live and Dead Stock for the year 1879—80.

Description of Timber and other Stock.	On hand at commencement of the year. No.	On hand at commencement of the year. Value.	Received during the year. No.	Received during the year. Value.	Total. No.	Total. Value.	Sold, otherwise disposed of during the year and Allowance for Depreciation. No.	Sold, otherwise disposed of during the year and Allowance for Depreciation. Value.	On hand at close of the year. No.	On hand at close of the year. Value.
Teak logs	63	819 0 0	353	4,589 0 0	416	5,408 0 0	142	1,846 0 0	274	3,562 0 0
Do poles	...	... 0 0	1,081	1,081 0 0	1,081	1,081 0 0	1,027	1,027 0 0	54	54 0 0
Junglewood logs ...	546	4,368 0 0	784	6,272 0 0	1,330	10,640 0 0	656	5,248 0 0	674	5,392 0 0
Do poles ...	231	231 0 0	166	166 0 0	397	397 0 0	244	244 0 0	153	153 0 0
Firewood cart loads ...	49	49 0 0	2,396	2,396 0 0	2,445	2,445 0 0	2,346	2,346 0 0	99	99 0 0
Firesticks	1,197	75 0 0	...	... 0 0	1,197	75 0 0	945	59 0 0	252	16 0 0
Bamboos	6,439	129 0 0	36,847	737 0 0	43,286	866 0 0	41,997	840 0 0	1,289	26 0 0
Total.....	8,525	5,671 0 0	41,627	1,50,241 0 0	50,152	20,912 0 0	47,357	11,610 0 0	2,795	9,302 0 0

Form No. 60. A.

Abstract shewing the Value of Timber and of Live and Dead Stock for the year 1879—80.

Description of Timber and other Stock.	On hand at commencement of the year. No.	On hand at commencement of the year. Value.	Received during the year. No.	Received during the year. Value.	Total. No.	Total. Value.	Sold or otherwise disposed of and lost during the year and Allowances for Depreciation. No.	Sold or otherwise disposed of and lost during the year and Allowances for Depreciation. Value.	On hand at close of the year. No.	On hand at close of the year. Value.	Cause of Loss and other Particulars.
Sandalwood.											
Good wood ...	...	... 0 0	106½	42,700 0 0	106½	42,700 0 0	57½	23,000 0 0	49¼	19,700 0 0	
Inferior wood ...	¼	8 0 0	67½	2,160 0 0	67¾	2,168 50 0	43½	1,392 0 0	24¼	776 0 0	
Total.....	¼	0 0	174½	44,860 0 0	174¾	44,868 0 0	101	24,392 0 0	73½	20,476 0 0	

F. B. DICKINSON,
Assistant Conservator of Forests, Coorg.

Dated 27th July 1880.

Mysore Government Press, Bangalore.—25-9-80—75.

PROGRESS REPORT

OF

FOREST ADMINISTRATION

IN

COORG

FOR

1881-82,

By F. B. DICKINSON, Esquire,

ASSISTANT CONSERVATOR OF FORESTS,

WITH A REVIEW BY THE CHIEF COMMISSIONER

AND

ORDERS BY THE GOVERNMENT OF INDIA.

1881.

No. 908F, dated Simla, the 6th October 1881.

From—A. MACKENZIE, Esq., C. S., Offg. Secretary to the Government of India, Home Department.

To—The Chief Commissioner of Coorg.

I AM directed to acknowledge the receipt of your Secretary's letter No. 784-72 R. F., dated the 22nd August last, submitting the Progress Report of Forest Administration in Coorg for the year 1880-81, and to communicate the following observations and orders thereon.

2. It is to be regretted that the revised rules for the Coorg forests, under Act VII of 1865, have not yet been submitted. When they are received, the Government of India will be in a position to consider whether they are legally sufficient to meet the circumstances of Coorg, or whether the extension of the Forest Act of 1878 to those forests is not desirable.

3. It is pointed out in the Chief Commissioner's review that the area of the reserved forests is not quite correctly given in Form No. 45. The annual report should state precisely the total area reserved and the total area completely surveyed, with explanations of any discrepancies or variations from the figures of previous reports. A considerable change is observed in the area now shown, consequent on the substitution of actual survey figures for those merely estimated in previous returns. The reserved forest now appears to comprise 140,855 acres, of which 124,255 acres have been surveyed.

4. Satisfactory progress has been made in the demarcation of the ghât forests, to which a considerable addition has been made during the year. The remote position of these tracts renders them at present of comparatively little value; but it is important to conserve them for climatic reasons, and they may eventually give no small direct return to the Department. It is a provident policy in any case to secure these forests while land is still abundant, in order that the extension of cultivation may be properly regulated hereafter.

5. It is noticed that, while *kumri* cultivation has been kept down, the effect has been to drive away the Kurubars and interfere with the supply of local labour. This is a serious matter; and if the inducements held out by the Department in the way of work are not sufficient to persuade these men to remain, it should be considered whether some system could not be devised of regulating and restricting *kumri* cultivation, without entirely stopping it throughout the considerable areas now reserved. The plan of getting the cultivators to plant up the *kumri* lands after the crop is taken, has been successful in Burma, and there also limited areas, carefully demarcated within the reserves, are set apart for the necessary cultivation, due precaution being taken against fire spreading into the reserves.

6. Plantation work appears on the whole to have received sufficient attention and to have been fairly successful. The reproduction of sandal-wood seems now to be conducted on what approaches a settled system. It is important, however, that works of improvement, even of an inexpensive kind, should only be undertaken when supervision is available; and the report shows that in several places failure ensued owing to the want of such supervision.

The nursery work at Mercara seems to have been unsatisfactory; and it should be considered whether some effective means of preventing or punishing cattle trespass cannot be found.

7. Much difficulty has, it is observed, been felt in arriving at the best mode of working the remote ghât forests. In the Arkomale forests extensive thefts by license-holders were detected, indicating clearly that very close supervision is called for, not merely over the permit-holders, but over the subordinate Forest staff. It is to be hoped that the conduct of some of the Forest officers, who appear either to have been concerned in or to have connived at these frauds, has been carefully enquired into and guilty parties severely dealt with. The plan of leasing small tracts to responsible persons, to be worked on security, under specific conditions, will require to be equally closely watched, and should be experimentally tested before being applied on a large scale.

8. The question of increasing the quantity of sandal-wood to be felled and brought to market will, as you remark, form more properly the subject of a special reference. Generally speaking, there can be no objection to increasing the quantity, so long as the market is not overstocked, and so long as it is certain that the quantity cut is not more than the forests can properly be made to supply during the term of years necessary for complete reproduction.

9. The results of fire-protection may be regarded, on the whole, as satisfactory; the area dealt with being larger, and the failures less considerable, than in 1879-80.

10. The financial results are as follows :—

		Rs.	Rs.
Receipts	... ...	...	... 87,857
Charges	A. Conservancy and Works ...	29,956	
	B. Establishments ...	26,531	
			... 56,487
Surplus	... ...		... 31,370

against a surplus in 1879-80 of Rs. 46,621.

The receipts are less than in the previous year by Rs. 13,929; but, on the other hand, the latter were abnormally increased by the credit of Rs. 18,167 on account of arrears of cardamom-rents. Making allowance for this, the results of the past year's working are satisfactory.

11. The report is creditable to Mr. Dickinson, the Assistant Conservator, who seems to exhibit much intelligence and to take a commendable interest in his work.

G. C. B. Press, Simla.—No. 607 H. D.—8-10-81.—260.

Proceedings of the Chief Commissioner of Coorg,
(Revenue-Forests),—dated 9th August 1881.

READ—

The Annual Report on the Forest Administration of Coorg for 1880—81.

No. 716 R.-F.—59, DATED BANGALORE, 9TH AUGUST 1881.

REVIEW BY THE OFFICIATING CHIEF COMMISSIONER.—For the last two years the Assistant Conservator and the Superintendent of Coorg have both adverted on the insufficiency of the Forest Rules of 1871 for the proper conservancy of the Coorg forests, and the Assistant Conservator recommended the introduction of the Act of 1878. These Rules of 1871 only apply to a few forests which have been declared and notified to be Government forests under the Act VII of 1865 and the rest of the forest lands in Coorg in which Government has rights are left practically without any rules having the force of law for their conservancy. It is considered however that this can be remedied without having recourse to the introduction of any new Act by notifying all forest land in Coorg as Government forest and so bringing all under the scope of the existing Act. Rules can then be issued in supersession of those of 1871 which will classify the forests into Reserved, Protected and Village forests and will provide for the conservancy of each class according to the extent of the Government rights existing in each.

2. The Superintendent and the Assistant Conservator have been engaged in framing such rules and the Officiating Chief Commissioner hopes that the result of their labors will soon be made known.

3. The Arekeri and Hutgatnad forests having been resurveyed and the dividing line between them re-adjusted, their areas are now given by the Survey Department as 26·72 and 43 square miles respectively. Both these forests were originally very greatly overestimated and subsequently a mistake was made by which an area of 25·03 square miles belonging to Arekeri was included in Hutgatnad. An addition is shown to the total area of the Government forests by the estimate made of the Urti and Kerti forest, and the total shown in Statement No. 45 is 149,270 acres, but it is not explained by Mr. Dickinson why the Kattipura forest, which was included in the statement last year, has been omitted now. Its area is 585 acres, and the total area should apparently be 149,855 acres. The area of Urti and Kerti and of Chembu and Quinad amounting to 25,000 acres is estimated; the total surveyed area is therefore 124,255.

4. The demarcation of Ghat forests has again progressed well though complaints are made of the difficulty of securing the co-operation of the subordinate Revenue Officials; an evil which it is hoped the Superintendent will be able to deal with satisfactorily; but the 100 square miles of forest which have thus been added are not included in Form No. 45 as the forests have not yet been gazetted.

5. The best method of working the inaccessible ghat forests is a question which presents some difficulty. Granting licenses to fell no doubt offers to the license-holders a keen temptation to profit by their opportunity and fell much more than they are entitled to, and a recent important case of timber theft which was brought to light more by good luck than by the vigilance of the departmental officers, shows that not only are the license-holders often only too ready to profit by their opportunities, but they are also able to procure the silence, if not the co-operation, of the subordinates of the department. The practice of leasing jungles on terms which protect them from injudicious and indiscriminate felling, and which permit of the operations of the lessee being checked once and for all, as has been done in the Urti and Kerti jungle, will probably be found to be a better plan.

6. The kumri difficulty does not appear to have been overcome yet, for though kumri has been prevented throughout the year, this has only been effected at the expense of losing the labor of many Kurubars, and in a country like Coorg, where labor

is so serious a question, this is a result to be greatly deprecated. If Mr. Dickinson can succeed in getting the Kurubars to restock the land with timber plants after they have taken a crop off it, and if the plants grow, the difficulty will indeed have been very satisfactorily overcome. The Officiating Chief Commissioner is by no means sanguine of the success of the proposed experiment, but it will be all the greater credit to Mr. Dickinson if it does not fail.

7. The survey of the ghat forests has not nearly been able to keep up with the demarcation, and it is evident that a more numerous party will have to be employed. If the Superintendent is unable to arrange for this with the establishment which is at his disposal, a separate representation should be made on the subject.

8. Fire protection has been somewhat more successful than in the previous year, the area actually protected being 106,768 acres and the failures amounting to 16,510 acres. Whereas in 1879—80 they were 19,984 acres. It is gratifying to learn that the fire in the Karmad teak plantation in February 1880 has not done a great deal of damage, the burned plants were cut down, and have all thrown up strong shoots.

9. The sections of Mr. Dickinson's Report which refer to plantations are exceedingly interesting, and they give evidence of the great care which is now being bestowed upon this important part of forest work. Mr. Dickinson visited the Madras sandal plantations in Collegal and submitted a report upon them. There is no doubt that Coorg cannot afford to organize plantations on so expensive a scale, and the success which is now attending the more modest efforts in the small plantations started at each Forester's head-quarters points to a more economical, and equally successful method of rearing sandal. If the experiment, also, which has been begun, of sowing sandal in ground covered with lantana gives the success which its inception promises, a further means of raising sandal in an economical manner will have been discovered.

10. The further progress made in the valuation of the sandalwood growth in the Province appears to the Assistant Conservator to justify the correctness of the original estimate of 1874; and these results, especially when taken in combination with what is hoped for from the sandal plantations, lead Mr. Dickinson to the conclusion that more sandal can be cut and sold, with safety, than is now permitted. This question must be separately considered on the Superintendent's Report.

11. The fluctuations of the sandalwood market cannot be put out of account when considering such a question, nor the consideration whether an increase in the amount sold will reduce the price. This year the average price was low, and 112 tons produced less than 101 tons in the preceding year. The revenue derived from timber and bamboos was better and if the demand at Húnsúr and Fraserpet does increase, there is nothing to prevent the revenue from these sources from being considerably greater in the future. On the whole the financial results are not discouraging, for although the receipts which amounted to Rs. 87,857 are less than those of 1879—80 by Rs. 13,928, it must be remembered that the income of that year was swollen by the collection of Rs. 18,167 arrears of cardamom rents. The expenditure amounted to Rs. 56,487, being Rs. 1,322 in excess of the previous year.

The statements which are appended to this report are in the same form as those of the previous year; in the report on the current year the revised forms given in the 2nd edition of the Forest Code will be adopted.

W. E. CUNINGHAM,
Secretary.

To—The Superintendent of Coorg.
" Assistant Conservator of Forests, Coorg.

No. 341—155.

COORG SUPERINTENDENT'S OFFICE,
DATED 29TH JULY 1881.

From

The Superintendent of Coorg.

To

The Secretary to the Chief Commissioner of Coorg,

Bangalore.

SIR,

I have the honor to submit herewith the Annual Report of the Assistant Conservator of Forests for the year 1880-81 with the following remarks.

2. Under directions from the Chief Commissioner a new set of bye-laws have been framed under Act VII of 1865, and will be submitted for sanction. They are much needed to protect both the interests of the ryots and of Government, especially in connection with village forests and forests attached to rice fields known as bánés, also to support the Government monopoly in sandalwood.

3. Another large tract of land on the verge of the western ghats about 100 square miles in extent has been included during the year in the forests which are reserved. These ever-green forests are of no great value to the Department, as they are difficult to work, from their inaccessible and remote situation. The evils of the license system have been fully illustrated in the case referred to by the Assistant Conservator, and can be regarded only as a make-shift, until the forests can be worked departmentally. The wealth of Coorg in timber is great. Doubtless there are many trees of minor value and bamboos now rotting in the jungle which might be cut and sold on the Malabar Coast and in the Arkalgúd Taluk of the Hassan District of Mysore. The whole question will be taken up after the result of the appeal against the convictions of the District Magistrate is known.

4 Progress has been made in the demarcation of jungles; and it is hoped the work will be all finished before the end of the next official year. A larger tract requires however to be cleared to protect the jungles effectually from forest fires. It is to be regretted that representation should have been made of the want of co-operation on the part of the Revenue authorities; but it has received attention, and arrangements will be made in future to avoid the duties which the Revenue officials have to perform, clashing as they now do with the demands of the Forest Department.

5. As the period during which Surveyors can work is limited, it is hoped that another party will be set to work next season as recommended, so as to show better results.

6. The question of protective measures being taken against fires in village forests and bánés will be considered in connection with the introduction of the new bye-laws; but it is questionable how far the authorities can demand the clearance of demarcation lines from villagers and owners of forests without bearing a portion of the expense.

7. As there is an abundance of sandal trees throughout the Province save only in the Nalkand, a much larger quantity admits of being cut and sold, for which sanction will be solicited as recommended by the Assistant Conservator. Ample provision is made for the requirements of the future in the sandal plantations, which are now being formed on a larger scale and in a more practical manner. The subordinates of the Department should by this time have become sufficiently conversant with their duties to admit of the progress on nurseries and plantations keeping pace with similar operations of planters of coffee and cinchona. After several year's experience the Department has abandoned the idea of growing sandal in the open plains, as it is found better to clear and burn the least valuable portions of the jungle for its recep-

tion. The teak plantations in the Kiggatnad Taluk are also well established; though it is not stated whether the trees planted out are equal to the number of trees felled in the forest. Success has attended the excellent plan adopted by Mr. Dickinson of making each of the Foresters form a nursery garden near his hut during the season of the year, when his other work is light.

8. So far the Mercara fuel plantations have not done so well as was anticipated. From the town being situated at the highest point of the plateau they are necessarily in an exposed position, and cattle can be kept out effectually only by a large outlay in making deep trenches and high hedges. At present the public draw their supply not from the large forests as might be supposed, but from the private holdings of ryots, who look only to immediate profit and are able to under-sell Government.

9. In para 55 of his Report Mr. Dickinson makes some judicious remarks as to the mode of felling, which should be adopted. A small manual might be drawn up by him as suggested, for the guidance of subordinate officers. In a country in which roads are few, labor is scarce and is highly paid, and carriage hard to procure during the short working season, unforeseen difficulties in carrying out any system may arise, and due allowance has to be made for shortcomings on its first introduction.

10. The successful way in which the saw mills established in the North Canara forests are worked may lead to the expectation that the steps now being taken for sawing timber on the spot will prove more successful, on its being undertaken on a larger scale, and on the requirements of the public being known and studied. It will lead to a saving in the cost of carriage both to Government and to the purchaser.

11. The formation of a timber float at Fraserpet, though most desirable, is attended with expense and numerous engineering difficulties, consequent on the sudden rising of the river in times of flood, and by up-rooted trees which are swept down with it.

12. The financial results compared with those of the previous year are as follows :—

		1879—80.	1880—81.
Receipts ..	..	1,01,785	87,856-8-11
Charges ..	..	55,165	56,486-11-2

It will be seen that the receipts are less by Rs. 13,928—7—1, which is due to a combination among the sandalwood-traders to keep down prices, and which necessitated the withdrawal of wood from the market. On the other hand it is satisfactory to observe a marked increase in the sale of timber and bamboos at the Forest Depôts, which supply the Mysore market. If sawn timber was procurable at Fraserpet, there would be no longer any *raisond' etre* for the Mercara Depôt, as traders will find it to their advantage to undertake the troublesome work of carting timber and bamboos up the ghat for sale.

13. The ratio which charges bear to receipts is heavy, being 64·29 per cent.

14. In countries like Coorg abounding with wood, the demands of the villagers upon it are generally found to be in like proportion. Not appreciating the immunities which they enjoy, compared with their less privileged brothern in the plains, they are apt to view with some bitterness of feeling all restrictions placed on encroachments and on the felling of valuable timber, to which they are not entitled. It is hoped therefore that the steps now being taken to define their rights in village forests and bánés as described in paras 66 and 67 of the Assistant Conservator's Report may conduce to the settlement of all disputed points. It should be borne in mind by Forest Officers that it is no easy task to induce the people to co-operate heartily in measures, the advantage of which to them is not apparent.

15. Mr. Dickinson's interesting Report embraces other points, on which comment would be superfluous.

I have, &c.,

W. HILL,

Superintendent.

ASSISTANT CONSERVATOR'S REPORT.

Annual Report on the Management and Conservancy of the Coorg Forests for the year 1880—81 *by* F. B. DICKINSON, ESQ., *Assistant Conservator of Forests, Coorg Division.*

I have the honor to submit the Annual Report of the Coorg Forest Division for the year 1880—81.

I. SUMMARY OF ADMINISTRATION DURING THE YEAR.

The Division was under the Assistant Conservator's charge except for the months of June, July and August, when he was on examination leave. During those months Sub-Assistant Conservator Mr. Muttanna held charge.

2. Mr. Muttanna has been engaged during the working season in demarcating the Ghat forests.

3. It has not yet been decided whether the Act of 1878 will be introduced, or whether the Rules of 1871 made under Act VII of 1865 shall be revised. Draft Rules under the old Act are being drawn up, and will, it is thought, be sufficient to the requirements of the Division, without the introduction of the new Act. The old Act allows of all the forests being brought under the denomination of Government forests, so that the Rules can be made applicable to both State and District forests.

II. RESERVED FORESTS.

4. The areas of the Reserved forests are given in Statement No. 45. The Arkere and Hutgatnad Forests have now been properly divided.

The portion thrown out for cultivation of coffee has been divided up into bits of suitable size for coffee estates. Applications have been received for Devamurchi No. 5 and 6,—250 acres—to satisfy Mr. Stewart's claim for exchange jungle. The balance 330 acres by Mr. Chisholm.

No applications have been received for the other portions thrown out.

5. A large area of Ghat forest has been added this year. About 100 square miles as compared with 140 square miles last year. These have not yet been gazetted, and are not included in Form No. 45.

6. The Urti and Kerti Forests were worked by Messrs. Chisholm and Tod under the lease granted to the former. They felled 242 ebony trees, 18 poon, 13 ayini, 2 irupu, 3 white cedar, 5 jack, 1 black wood, and 1 red cedar.

Mr. Chisholm complains that the price of ebony is too high, as in some large trees there is a very small proportion of ebony and thence much loss.

7. Mr. Chisholm has again taken the lease of these two forests at a lower minimum than for the year under report, *viz.* Rs. 2,500. He intends working poon and white cedar chiefly, as ebony has not paid him well this year.

8. The evils of the license system have come very prominently forward during the year in connection with the licenses given to the Maplahs to fell in the Arkomale Forest. These unprincipled people took licenses for about 40 trees and felled the large number of 729. Owing to the remoteness of the forest in question, no information was received of these thefts. The Forester in charge did not report them and seemingly did his best to prevent the enquiry and hush the matter up.

It was not till the middle of December that information was sent to the Assistant Conservator by one Maletti Somappa.

In January the forests were visited by the Assistant Conservator and from evidence of the people in the neighbouring kumris and the enumeration of the stumps in the forests, it was clearly proved to his mind that the thefts had occurred, and 13 people were charged with theft. They evaded apprehension however till their property was attached when 12 of them gave themselves up. The 13th has not been apprehended.

The charge has at length been brought home to nine of them. But the evidence was insufficient against the other three. A separate case will have to be made for the 13th man.

9. The license system will clearly have to be abandoned for these remote forests. A better system would be to lease a small tract to each person who wants timber and make him responsible by the terms of his lease for that area.

He binding himself to pay double rates for trees felled over and above what was agreed upon, and giving sufficient security, such a system would admit of a single examination of the forest at the end of the season, and would minimise the thieving which seems to be the normal state of things in Malabar much as smuggling used to be in England.

10. Kumri has been kept down all over the Province. But it cannot be denied that the measure has a bad effect on the labor in the forests. We have lost many Kurubars and are therefore put to much inconvenience, for which some remedy is necessary. It is therefore intended to try if the Kurubars can be induced after taking a crop off the ground to plant it up with timber plants, as is the custom in Burmah.

If this can be done we can get all the old kumri plots, now a tangled mass of secondary jungle, restocked with good forest.

III. PROTECTION AND IMPROVEMENT.

11. *Demarcation.*—All the old lines round the eastern forests have been cleared in connection with fire conservancy.

12. The demarcation of the Ghat forests has progressed satisfactorily. Larger belts have been made to mark the line than last year. The outer lines in Tavunad, Benganad and Kuyengerinad were finished, and the inner line in Madikeri-Halerinad and Gadinad-Muttunad, the line in Yedenalknad and Kiggatnad remains to be finished next year. It is hoped that the whole will be completed next season.

13. A sketch map showing the extent of the lines made during the year is annexed. Mr. Muttanna made several complaints regarding the negligence of the Parpattegars especially the Kuyengerinad, and the Gadinad, Muttunad Parpattis. These men appear to have paid no attention to his behests, as also the Patel of Madé village. But in spite of, continual reports about them, it is believed no notice has been taken of their neglect.

14. The work done is summarized below.

Summary.

Names of Taluks.	Number of Miles cut.			Pits dug.	Posts fixed.	Cost.		
	M.	F.	Yds.					
Mercara...	15	6	174	389	345	118	10	1
Padinalknad	85	7	211	2,558	2,600	445	15	4
Yedenalknad	2	...	...	74	75	13	4	0
Nanjarajpatna	23	5	15	466	478	142	7	9
Total.. ...	127	8	180	3,437	3,498	720	5	2
Add—								
Contingencies ...				...	...	8	15	6
Establishment Cost ...				...	...	51	12	4
				Grand Total Rs.....		781	1	0
Average Cost per mile				...	...	6	2	0

15. *Surveys.*—A Surveyor was appointed by the Superintendent in the month of October 1880; he was ordered to commence work in Kuyengerinad, but he soon threw up his work, alleging that it was too hard for him.

Another man was appointed in the month of January 1881, and has worked in Kerike, Peraje, Chembu and Sampaji villages for nearly four months. His field books are sent to the Superintendent, Madras Surveys. He seems to get on very slowly, and it has been suggested that a 2nd party be organized, and both set to work next season, so the survey may be pushed on quicker.

From the field books it appears 34 miles have been completed giving an average of nearly ½ mile a day for working days.

16. *Fire Conservancy.*—All the deciduous forests were protected more or less successfully. It was a trying year for fire conservancy, because the early showers held off for so long. Fires were constantly breaking out in the middle of the forests, and the guards had to be continually on the alert to put them out. The worst part of the matter was that out of all these small fires, in only one case was the offender caught and brought to justice, and then he was only fined Rs. 30 without imprisonment which is a totally inadequate punishment. Several persons were caught with guns in the forest, and their guns seized, but they had to be let off.

17. The following statement summarizes the results of fire protection with the cost per square mile compared with that of last year:—

Statement showing the Area of State forests protected from fire.

Forests.	Area attempted to protect.	Area protected.	Cost per Square Mile.			Cost per Square Mile last year.		
Dulare	11,365	9,318	29	3	2	18	0	5
Anekadu	11,507	11,507	8	7	1	20	10	8
Devamurchi	7,569	6,906	14	14	6	61	15	3
Karmad	229	229	...	...	...	...	...	...
Yedavanad	7,839	7,839	15	2	8	41	6	0
Ganagur	5,989	5,989	10	8	10	23	10	9
Nalkere	25,742	22,108	17	5	7	19	10	4
Mavukal	8,188	6,970	42	2	11	44	3	9
Gangvara sandal reserve ...	50	50	..	...	...	...	...	...
Arkere	17,280	14,364	4	...	...	16	7	4
Hatgatnad	27,520	21,488	21	3	3			
Total.....	123,278	106,768	...	...	...	...	...	...

18. The villagers again allowed their udves to burn for the most part. The Superintendent issued orders that fire traces should be made round their udves, but they failed to obey the order.

Rules regarding fire conservancy in the urdves and bánés are very necessary, and it is hoped it will be possible to embody them in the new Forest Rules.

Plantations.

19. A good deal of new work has been undertaken under this head with a considerably increased expenditure. Each Forester has opened about 5 acres and planted it with sandal. In every instance where heavy forest land was treated the success of these small plots has been most gratifying. The forest growth was felled clean and burned after removal of timber, 1½' cube pits made and the sandal plants put into them.

In scurb forest treated similarly, the success was not nearly so good.

This proves that sandal appreciates good jungle soil mixed as it is with humus.

20. It is proposed to continue these small plantations for the present. The usual objection to small plantations of having to pay a costly establishment for a small out-turn of work is not applicable here, as the Foresters are on the permanent establishment, but have very little other work to do in the monsoon, so that this planting is useful in keeping them employed, and costs Government nothing extra for supervision. The plantations so formed will become in time most valuable properties.

21. To compensate us for the extra expenditure it is proposed to sell more sandalwood. We are fully justified in doing this as the results of the valuation of sandalwood in the Province as given in para 64 the further it proceeds show more clearly that we have not been working up to the "*Possibilite*" by a good deal, almost as great a mistake as exceeding it. Again, the planting of only 20 acres yearly would add a yearly increase to the stock which at maturity will yield at least 150 tons of sandalwood, *i. e.* double as much as it has been the custom to extract.

22. The orders given regarding the planting of the "Coupes" in lines leaving bands of jungle and cultivating alternate bands, were not very well understood, so the idea was not given a fair chance, but this year it is hoped to get some satisfactory work done in this direction. New ideas of this sort take a long time to become thoroughly understood out here.

23. *Karmad* (Teak).—The work was confined to weeding, cutting down the plants injured by the fire of the 28th February 1880, so that they might send up fresh shoots from the roots, planting up vacancies, girdling jungle trees, &c.

The fire did not do much damage. All the burnt plants which were cut down to the ground sent up strong shoots.

24. The expenditure on the plantation was as follows:—

	Rs.	As.	P.
Clearing jungle	32	8	0
Weeding	391	13	4
Nursery work	103	4	0
Watering	44	14	8
Collection of materials	11	8	0
Pruning	48	8	0
Erecting cattle pound	12	8	0
Lining and pitting	74	0	0
Tube making	7	8	0
Erecting pandal	14	9	4
Path making	9	2	8
Girdling	28	0	0
Establishment	48	6	0
Total....	826	10	0

25. *Karmad* (Sandal).—About 5 acres of land adjoining the teak plantation on the southern side was felled, burnt and planted with sandal. It is fairly well stocked and the plants present a most promising appearance.

Five acres more was felled in December preparatory to planting this season. For which a nursery has been provided.

26. The expenditure was as follows:—

	Rs.	As.	P.
Clearing jungle	25	12	0
Nursery work	31	7	2
Tube making	8	5	4
Pitting	69	12	0
Weeding	145	0	4
Planting	14	5	4
Sundries	7	0	9
Establishment	34	1	0
Total ..	335	11	11

27. *Nalkere Coupe.*—The teak seed in the nurseries did not germinate freely, so these were not sufficient plants to plant up the whole of the coupe. About $\frac{1}{6}$th was planted up and in the rest, seed was put down a half measure which was quite unsuccessful. The Forester who appears to have been left to his own devices did not understand the circular orders given. Instead of leaving bands of jungle alternately he cut down all the jungle except some caste trees which had been left as seed bearers. By doing so too much light is let in, and the growth of weeds will be considerable and expensive to keep down.

Now such expenses are just what we want to avoid, as we can neither spare the money nor the labor for them where a yearly increasing area has to be treated.

28. *Nakerel* (Sandal)—About 6 acres was planted, the heavy forest having been felled and burnt. The plants are in a very thriving condition and about 8 acres more has been prepared for planting this season.

29. The expenditure on it was as follows:—

	Rs.	As.	P.
Clearing jungle	156	2	0
Preparing tubes and sowing seeds in .. .	10	0	0
Lining and pitting	32	4	0
Nursery work	42	8	6
Planting and watering	72	12	0
Weeding	144	8	0
Manuring	1	12	0
Pruning	5	11	0
Sundries	16	12	0
Establishment	10	5	4
Total	492	10	10

30. *Tittimatti* (Sandal).—This was made in heavy forest like the previous one, and is doing very well. Only 3 acres were planted, the work having been begun late in the season owing to indecision about the plot of land that should be treated.

31. The expenditure was as follows including the cost of preparation of a new bit of 5 acres for planting this season:—

	Rs.	As.	P.
Nursery work	38	9	0
Tube making	0	14	0
Planting and watering	16	2	0
Pitting	12	12	0
Weeding	141	1	0
Fencing	3	13	0
Sundries	7	4	0
Establishment	10	6	4
Total	230	13	4

32. *Maldare* (Sandal.)—About 10 acres of poor forest was felled. But the Forester had not provided sufficiently large nurseries and was only able to plant up 5 acres.

The plantation was a failure to a great extent owing to bad work. The soil too is not rich here like it is in the heavy forests.

33. The expenditure was as follows:—

	Rs.	As.	P.
Clearing jungle and weeding	112	7	0
Nursery work	30	7	4
Fencing	6	4	0
Shading	3	8	4
Planting	19	8	0
Collection of seeds	1	12	0
Fixing pegs and pitting	44	4	0
Sundries	1	8	0
Establishment	3	9	4
Total....	223	4	0

34. The planting work in North Coorg was not so successful as in south, chiefly owing to bad work on the part of the Forester, but also in a certain degree to poor soil.

35. *Frascrpet.*—Experimental sandal is now pretty well stocked, and will be left much to itself in future; there is no land for extension and besides its *raison d'etré* exists no longer as we have come to pretty definite conclusions as to the best way of planting sandal.

36. *Gangvara.*—About 15 acres was cleared, burnt and pitted, but the holes were skimped in spite of stringent orders, and the planting dragged on till very late.

The portion about 5 acres which was planted in proper time is doing well. But the rest is patchy. Mr. Muttanna reports that "more than 50 per cent of the plants put down last year remain in excellent condition besides numerous other plants in togari lines.. The majority of the plants are about 1' in height, and there are more than a thousand which are two or three feet in height. All the plants are looking exceedingly healthy having large dark green leaves." He also says in the old plantings which were made on the old half measure system hardly 5 per cent of the plants are alive, and they are sickly. This speaks well for our new system, and at the risk of losing a few sickly plants it will be advisable to fell clean the old area and replant it.

37. The expenditure was as follows on the old and new plantings:—

	Rs.	As.	P.
Clearing jungle	94	6	4
Nursery work..	82	6	4
Tube making and setting seeds	39	5	0
Manuring	15	3	10
Planting and watering	58	8	8
Fencing	4	8	6
Thinning shade	32	10	0
Pitting	126	15	0
Fencing Bútále	1	8	0
Girdling	8	10	0
Trenching	21	0	0
Weeding	53	4	10
Sundries	6	1	4
Establishment	336	0	0
Total ..	880	7	10

38. *Kargode* (Sandal).—Is a small bit in heavy forest of 2 acres and is doing well. A new bit has been prepared for planting.

39. The expenditure was as follows:—

	Rs.	As.	P.
Clearing jungle	43	11	6
Making tubes..	6	8	0
Fencing	6	6	0
Nursery work..	46	0	0
Opening drains	3	0	0
Setting seeds in tubes	8	8	0
Weeding	7	4	0
Collection of seeds	7	0	0
Lining and pitting	15	6	0
Trenching	4	0	0
Total.. ..	147	11	6

40. *Herikere* (Sandal).—About 10 acres cleared. But the nurseries were insufficient, the burning was badly done and the holes skimped. The general result is poor. About 6 acres may be considered as stocked. The Ranger states that the ryots show ill-will to the plantation, and refuse to allow their people to work on the place. Orders have therefore been given to get in a gang of coolies from Mysore country to work it.

The expenditure has been as follows:—

	Rs.	As.	P.
Clearing jungle	133	0	0
Fencing	56	0	0
Manuring	2	2	0
Planting	10	14	0
Nursery work	36	12	0
Weeding	34	4	0
Collection of seeds	6	4	0
Lining and pitting	131	0	0
Sundries	8	11	4
Establishment	189	9	4
Total.. ..	608	8	8

41. *Hudugur* (Sandal).—This is situated close to the river just outside of Yedavanad Reserve; was a bit of grass land; was not well planted. Insufficient nurseries were provided, and the plants put in late, consequently the result was poor.

No fresh clearing has been made, but the old bit will be supplied up.

42. *Hurlikal Plantation.*—This was an experiment in sowing sandal seeds under lantana, and was well carried out by North Coorg Ranger with successful results. The experiment was made on some open land in the Attur Forest which has been invaded by lantana and having been undisturbed has grown to a great height, but not so densely as is the case in the village forests where it is burnt down every year, after which it springs up thicker than ever, the burn seemingly having the effect of causing all the seed lying in the humus to germinate. In 2 acres of this land where lantana is high and open, lines were cut at 8 feet apart about 5 feet broad, and sandal seed sown as well as some plants planted. There is now a crop of healthy seedlings along these lines in many cases a great deal too numerous.

Another small bit of 2 acres will be treated in the same way, and the surplus plants in last year's bit transplanted into the new lines.

The high lantana on both sides of the lines serves to keep off the heat of the sun in the hot weather, at the same time it is continually adding to the stock of humus. As there is an extensive area of land in Attur Forest in similar conditions the success of the experiment is very pleasing.

43. *Anekadu* (Coupe).—Last year's felling was treated, by clearing alternate strips and leaving alternate strips of jungle. Unfortunately the teak seed did not germinate well, and there was not sufficient seed put down in the nurseries, it being a bad seed year for teak all over the country. About 10 acres was however planted up with very few failures.

The rest was sown with teak seeds in the pits with the usual result of such half measure.

44. The expenditure was as follows which is very high:—

	Rs.	As.	P.
Clearing jungle	16	15	0
Lining and pitting	85	10	0
Nursery work and planting	25	6	2
Weeding	47	10	0
Fencing	0	2	4
Sundries	8	4	0
Establishment	20	8	0
Total....	204	7	6

45. *Balagodu* (Sandal).—On the out-skirts of the Anekadu Forest near the Balagodukere, about 4 acres of semi scrub was cleared and burnt. The result was poor, only about ¼ the plants surviving, which is attributed to late planting and skimping of the pits.

The Forester who had charge of this and the coupe mentioned in para 43, neglected his work badly, and as he was on probation he was not confirmed.

46. The expenditure was as follows:—

	Rs.	As.	P.
Clearing jungle	88	11	4
Lining and pitting	61	2	0
Collection of seeds	5	14	0
Nursery work..	105	10	0
Fencing	15	4	0
Weeding	41	8	8
Planting	17	12	0
Manuring	2	10	0
Sundries	11	0	0
Establishment	57	1	4
Total	406	9	4

47. A small plantation by the Ramasamudra irrigation channel. About 2 acres of heavy forest was cleared, burnt, pitted, and planted. It was a fair success, but is out of way, and not worth while extending at present.

48. In Dubare Forest the coupe was not planted owing to non-germination of the teak seed.

49. *Churlikere* (Sandal).—This is situated at half a mile from the bungalow in semi scrub: about 5 acres was planted with middling results.

It is being extended this year in the adjoining forest land.

50. In accordance with the directions in para 6 of the Review by the Government of India on the Annual Report for 1878—79, the sandal plantations at Bailur in Collegal in the north of Coimbatore District were visited and a report submitted by the Assistant Conservator in his No. 585—231, dated 23rd September 1880. Good results have no doubt been attained there as far as they go, but at such a cost that multiplied as it will be by the accession of compound interest for a period of 50 years, will hardly be covered by the returns. Doubtless they have now gained experience to enable them to keep the expenditure within reasonable limits. The visit strengthened the conclusion already arrived at, that the land must be first cleared of all jungle, which after being felled should be burnt as clean as possible. The land should then be pitted, good large pits being made not less than 1½ feet cube. The plants should be planted into these very carefully with ball plants as early in the rainy season as possible. The plants then establish their roots deep in the moist sub-soil and have nothing to fear from the ensuing hot weather except in an exceptional year when the rain is too short and the hot season long.

51. *Mercara* (Fuel).—About 40 acres was planted up with casuarina and other exotics. The planting was far from good, and there were 60 per cent of failures including the plants trodden down and eaten off by cattle which did an enormous amount of damage in spite of all the efforts made to keep them out. The area will be supplied up and all means will be taken to keep cattle out, but it is very up-hill work. If cattle shooting were allowed it would be a comparatively easy matter, for then the owners would take very good care to keep their cattle out themselves.

52. The expenditure on the plantation was as follows against which must be set Rs. 163—0—10 realized by the sale of plants:—

	Rs.	As.	P.
Clearing lantana and weeding	626	0	6
Nursery work	37	5	9
Purchase of cinchona plants	10	0	0
Planting	49	12	4
Purchase of materials	17	14	0
Thatching hut	7	4	0
Supply of failures	5	8	8
Fencing	104	10	9
Pitting	549	14	0
Sundries	20	4	0
Establishment	424	2	0
Total....	1,852	12	0

Roads and Bridges.

53. No new work was done under this head. An abstract is annexed showing the cost of repairs made to various jungle roads :—

	Rs.	As.	P.
Fraserpet-Dubare road	6	0	0
Biranahalla bridge	0	8	0
Tittimatti-Karmad road	1	8	0
Nalkere-Kallalla bridge	2	8	0
Jainkal Ramaswamikanave road . ..	1	8	0
Nagrahole road repairs	83	10	0
Dubare road	2	12	0
Palpare bridge	50	0	0
Dubaré-Maldaré road	23	9	4
Yedavanad road	2	0	0
Maldare road	12	8	0
Total....	186	7	4

Buildings.

54. All the forest bungalows were repaired. But no funds could be spared for the completion of the Aramanebáne hut. It remains an open shed, not convenient but still useful for camping in. The expenditure under this head was as follows:—

	Rs.	As.	P.
Na lkere bungalow, repairs	23	7	8
Maldare bungalow do	24	0	0
Do Forester's hut do	6	0	0
Construction of Ranger's and Forester's hut at Tittimatti	120	6	0
Kutampole Forester's hut, construction ..	30	0	0
Dubare bungalow, repairs	42	3	4
Sandalkoti	8	0	0
Gangvara Plantation hut, repairs	1	0	0
Ramaswamikanave bungalow, repairs	4	8	0
Kargodu hut, repairs	2	0	0
Yedavanad plantation hut, repairs.	3	8	0
Mercara Depôt hut, repairs	38	12	0
Total...	303	13	0

IV. YIELD AND WORKING.

55. *Timber.*—The greater part of this was obtained from coupes. A statement showing the amount of produce obtained from these is annexed. It is our great aim to establish this system thoroughly. Of course selection fellings cannot be altogether abandoned. But they should not be allowed to go on in the old haphazard way, when the selector was too often the cooly who felled the tree, and who naturally chose the easiest and most accessible. It is a matter for consideration whether some general orders might not be published on the subject, so as to prevent the chance of a return to the old system.

56. Statement of the quantity of trees and bamboos felled in coupes and sent to depôts :—

Statement of the Quantity of Trees and Bamboos felled in Coupes and sent to Depôts.

Locality.	Description of Timber and Scantling.	On hand from previous year.		Cut during current year.			Total.		Sent to Depôts.			Balance.	
		No.	Cubic foot.	No. of Trees.	No. of Logs.	Cubic foot.	No.	Cubic foot.	To what Depôt.	No.	Cubic foot.	No.	Cubic foot.
Nalkere ...	Teak logs	69	3,135	171	277	8,931	346	12,066	Sent to Húnsúr ...	281	8,190	65	3,876
	Junglewood	45	1,471	111	157	3,897	202	5,368	Do ...	150	3,528	52	1,840
	Total	114	4,606	282	434	12,828	548	17,434		431	11,718	117	5,716
Attur... ..	Firewood	...	...	...	1,712¼	...	1,712¼	...	Do Firewood ...	1,712¼	...	...	...
	Total.....	...	...	...	1,712¼	...	1,712¼	...		1,712¼	...	...	...
Anekadu ...	Teak logs	16	288	2	5	94	21	382	Sent to Mercara ...	4	85	12	176
									Do to Fraserpet ...	5	121		
	Do poles	19	...	...	...	...	19	...		...	...	19	...
	Junglewood logs ...	73	963	170	195	3,082	268	4,045	Do to Mercara ...	117	1,896	93	1,314
									Do to Fraserpet ...	58	835		
	Do poles	148	...	900	900	...	1,048	...	Do to Mercara ...	85	...	813	...
									Sold in Forest	150	...		
	Bamboos	...	...	36,053	36,053	...	36,053	...	Sent to Mercara ...	14,785	...	4,980	...
									Do to Fraserpet ...	16,288	...		
	Total.....	256	1,251	37,125	37,153	3,176	37,409	4,427		31,492	2,937	5,917	1,490
Dubare ...	Teak logs	8	164	78	410	3,066	418	3,230	Sent to Fraserpet ...	331	1,929	87	1,301
	Do poles	8	...	21	21	...	29	...	Do	...	..	29	...
	Junglewood	117	2,365	95	116	1,492	233	3,857	Do	62	794	171	3,063
	Do poles	321	...	8	8	...	329	...	Do	...	...	329	...
	Bamboos	...	...	5,100	5,100	...	5,100	...	Do	1,000	...	4,100	...
	Total.....	454	2,529	5,302	5,655	4,558	6,109	7,087		1,393	2,723	4,716	4,364

57. A good deal of timber and bamboos was extracted from the spaces between the fire lines. It is of great advantage to have these as clear of tree and bamboo vegetation as possible, because they then dry so much sooner and are ready to burn before the adjoining forest is.

58. The timber was brought in by contractors excepting to Mercara Depôt; the transport to the latter was done by the Government carts and bullocks. Annexed is a statement showing the cost of the carts and bullocks and the value of the work done.

Statement showing the expenses for carts and bullocks and the value of the work done:—

Income.		Quantity brought in and value.						Expenditure.				
Name of Depôt.	Description of Materials carted.	Number.	Cubic foot.	Value of work done.				Items.	Cost.			
Mercara ...	Logs ...	121	1,981	619	1	0		Gram ...	508	8	5	
	Poles ...	24	...	24	0	0		Grass ...	454	0	9	
	Bamboos ...	13,365	...	534	0	0		Shoeing ...	62	2	0	
Fraserpet ...	Logs ...	64	661	61	15	6		Repair of carts ...	44	8	2	
	Poles ...	32	...	7	8	0		Sundry expense ...	52	13	8	
	Bamboos ...	6,265	...	93	12	0		Pay of drivers ...	705	9	2	
From Kibbribetta to the river side...	Logs ...	61	857	53	9	0						
Firewood Depôt ...	Firewood cart-loads ...	186	...	58	2	0						
	Carriage of tents ...	...	...	420	0	0						
	Total...	...	...	1,871	15	6		Total Rs.....	1,627	10	2	

59. The experiment of sawing up some of the large trees in Nalkeri was tried, but the sawyers did not appreciate the work and left it after sawing up 11 trees.

These have been brought into depôt, and, there is little doubt, will sell for more than the ordinary rate. The cost of sawing is about 3¼ annas the cubic foot. The purchase of an elephant has been sanctioned to obviate the labor and expense of making separate sawpits for each kind of trees. It is found however that he will not drag the logs without harness which is being made for him. It is hoped to get some more sawyers in August and proceed with the sawing work.

60. It was not found possible to get the float fixed across the river at Fraserpet, the gear prepared not having been strong enough to resist the force of the current. The idea however is not abandoned, want of funds having kept it in the back ground. If the necessary extra gearing can be got up in time, it will be again tried. If successful there is no doubt a large saving in transport would be effected.

61. The revenue from timber and bamboos is more satisfactory than in former years, owing to more produce of that kind having been brought into the paying depôts, *viz.* Húnsúr and Fraserpet. The sales at Mercara depôt have not been so satisfactory as was expected. The inhabitants appear to be able to get their timber from the owners of neighbouring estates with whom we are not able to compete in price. Even bamboos, of which there used always to be a good sale in the town, are being superseded by reapers as Mangalore tiles are now almost always used for new buildings.

62. The yield of timber can be greatly increased if a market can be found for it. It is hoped that the railway will increase the demand, in which case there are good times in store for the Coorg Forest Department. The yield of bamboos can be increased almost indefinitely, indeed it may be looked upon as a weed, although such a useful plant certainly obnoxious to tree vegetation. Therefore to a very large ex-

tent the more it can be got rid of and its room occupied by timber trees the better. We have forests which have been overworked for timber where the bamboo has occupied the whole of the ground, and so closed in that it is impossible for any plant to grow up beneath it.

63. *Sandalwood.*—The contractors worked satisfactorily, 118¼ tons were brought, the greater proportion of which was from dry trees. The cost of collection was Rs. 48—11—11 per ton. 112½ tons were sold for Rs. 34,324—2—11, or Rs. 305—1—7 per ton, a low average because the higher classes of wood were not sold, and also because the merchants combined to keep down the prices.

64. A proposition has been made, but has not yet received sanction, to increase the sales of sandal: the reasons for the proposition are given in para 21 of this Report.

65. The valuation of the sandal wood growth in the Province was continued during the monsoon, as in last year. The results are given in the accompanying statement by hoblis showing the number of villages counted, and those which still remain to be counted. It is probable that the total will come out much the same as that arrived at in 1874, though probably more as that old enumeration does not appear to have been very thoroughly done in the more difficult and jungly parts of the country, such as Yedavanad and Gadinad. But still it is a matter for consideration whether the old result is not likely to be sufficiently correct for all practical purposes, to which we can apply the averages fixed by the new enumerations to find the percentage of each class, namely (1) dry trees, (2) those which can be felled within 20 years, (3) younger trees.

Statement showing the sandal trees counted in 1879—80 and 1880—81 :—

Taluk and Hobli.	Dry Trees.	Trees that can be felled within 20 years.	Trees that can be felled after 20 years, that is plants.	Total.	Remarks.
Mercara Taluk.					
Uligulimudigerinad	61	168	4,211	4,440	2 villages out of 11.
Total.....	61	168	4,211	4,440	
Nanjarajpatna Taluk.					
Nanjarajpatna Hobli	120	810	5,180	6,110	22 out of 26.
Ramaswamikanave Hobli	351	2,049	6,712	9,112	27 out of 30.
Yedavanad	166	2,608	6,635	9,409	3 out of 37.
Gadinad	99	1,096	2,969	4,164	2 out of 22.
Total.....	736	6,563	21,496	28,795	
Yelsavirshime Taluk.					
Kodli Hobli	36	371	712	1,119	4 out of 55.
Bilaha	61	626	882	1,569	4 „ of 40.
Nidta	669	6,069	20,152	26,890	43 „ of 73.
Total.....	766	7,066	21,746	29,578	
Grand Total Trees counted during 2 years.....	1,563	13,797	47,453	62,813	

V. UNRESERVED FORESTS.

66. One hundred and sixty-two applications for coffee, &c. were sent for report, chiefly small plots of lands. There is not much unallotted paisari now left for appli-

cations. One hundred and eleven applications were disposed of and there remain 51 to be reported on.

67. As already stated in para 3 draft rules are being prepared which will bring the unreserved forests under some sort of management which is much needed. It is intended to classify them as village and protected forests. The latter will comprise all unallotted paisari or Government waste land and báné land.

68. The examination of the udves in North Coorg mentioned in para 59 of last year's report is progressing, but owing to press of other work could not be finished during the year under report. When completed it is hoped that a satisfactory settlement to both sides may be come to, but the ryots are so unreasonable in their demands, that such hopes are faint unless the ryots are made to understand that they cannot expect to have everything they ask.

VI. GENERAL REMARKS.

69. A few words are necessary here regarding the conduct of the Patels and ryots when called upon to aid the Officers of the Department. There seems to be a general feeling throughout the Province that the Forest Department has no right to demand such aid (of course on payment). It is frequently not given at all or given very grudgingly. Now unless we have the aid of local knowledge and supplies it is quite impossible for us to get on with our work in a proper way. And such must be given promptly so as to avoid loss of time. The Officers of the Department have often to go twice to a jungle to report on it simply because the Patel and ryots do not come when ordered. Is it then to be wondered at that this sort of work gets much in arrears? When complaints are made they are allowed to get off on the most trivial excuses, the Subedars and Parpattegars backing them up.

70. *Exotics.*—The *eucalyptus* plants did not do well when planted out, the rain probably being too heavy for them. The Australian wattle and the *Pithecolobium Saman* has done fairly well, but these were a great percentage of failures. A small supply of a *Pycnantha* and seven different kinds of *eucalyptus* have been kindly sent by the Conservator of Forests, South Australia. These have been put down in the Mercara nurseries. The cinchona nurseries proved a failure owing to the rain coming on soon after they were made. It has been ascertained that it can be reared much more easily in the dryer parts of the district and will be tried this year at Fraserpet.

71. Much good work was done in planting by the South Coorg Establishment. Fire conservancy was, however, not so successful as could be wished. Forester Uttaiya's conduct with regard to the timber thefts in the Arakomale Forest is much to be blamed, if not dishonesty it showed great carelessness, the thefts having been so large. Neither does Ranger Madaiya's conduct show out well. He at any rate inspected the jungle twice during the time when the thefts were going on.

It is strange therefore that he should not have known any thing about them, had his inspection been any thing but the most superficial the thefts could not have escaped his notice

Forester Machimandra Kariyappa tendered his resignation in April 1880, which was accepted.

72. The Office Establishment has worked satisfactorily, except that the work of the different branches is not sufficiently well supervised by the Head Writer. It is hoped that orders lately given in this matter will make a satisfactory change in this direction. The Kanarese Department especially wants more attention, it is impossible to expect one Munshi on Rs. 20 per mensem to be competent to do the work of an office where all orders to subordinates are in the vernacular, unless he is well looked after by the Head Writer. It is thus that whenever a case turns up and reliable vernacular documents are required from the records, there is frequently a great difficulty in getting at them owing to the confusion into which these papers have been allowed to get.

Dated 23*rd June* 1881.

F. B. DICKINSON,
Asstt. Conservator of Forests, Coorg.

FOREST DEPARTMENT, COORG.

Form No. 45.

Area of Reserved Forests in Coorg Division for the year 1880—81.

Division.	Name of Forest.	Area on 1st April 1880.		Additions during the year.		Excluded or transferred to other Heads.		Total on 31st March 1881.		No. and Date of Notifications of Additions and Transfers, &c.	Remarks.
		Square Miles.	Areas.	Square Miles.	Areas.	Square Miles.	Areas.	Square Miles.	Areas.		
Coorg Division.	Dubare ...	18	11,365	...	...	...	...	18	11,365		Transferred from one to another, *vide* Superintendent, Madras Survey letter No. 28, dated 7th April 1881 received with Superintendent of Coorg No. 37, dated 18th April 1881.
	Devamurchi ...	12	7,569	...	...	...	...	12	7,569		
	Mavukal ...	13	8,188	...	...	...	...	13	8,188		
	Arkeverad ...	2	1,085	25	16,195	...	...	27	17,280		
	Hatgatnad ...	68	43,542	...	...	25	16,022	43	27,520		
	Nalkeri ...	40	25,742	...	...	...	...	40	25,742		
	Urti and Keiti ...	16	10,240	14	8,960	...	...	30	19,200		
	Chembu and Quinad ...	10	6,400	...	...	...	...	10	† 6,400		
	Anekadu ...	18	11,507	...	...	...	...	18	11,507		
	Ganagur ...	9	5,989	...	...	...	...	9	5,989		
	Yedavanad ...	12	7,839	...	...	...	...	12	7,839		
	Sandalkoti ...	...	276	...	...	...	...	...	276		
	Attur ...	1	395	...	...	...	...	1	395		
	Total ...	219	140,137	39	25,155	25	16,022	233	149,270		

* Since estimated.
† Estimated.

Form No. 46.

Area of Plantations for 1880—81.

Division.	Name of Plantation.	On 1st April 1880.					During 1880—81.					On 31st March 1881.					Remarks.
		Area.	Total Cost.				Area.	Total Cost.				Area.	Total Cost.				
	Karmad Teak ...	229	20,444	2	2		...	828	10	0		189	21,270	12	2		This is the surveyed area, the old area being estimated. A few lists have to be supplied.
	Kutampole do ...	152	7,246	0	0		..	...	...	...		50	7,246	0	0		¾ failed.
	Karepura do. ...	24	1,950	0	0		...	...	...	...		4	1,950	0	0		20 acres failed and abandoned 6 years ago.
	Mercara Fuel ...	...	980	3	4		30	1,852	12	0		10	2,832	15	4		½ failed.
	Tittimatti Teak ...	...	...	...	...		...	...	...	...		5					Expenditure not known. Twenty acres planted in previous years and abandoned. 5 acres are well stocked.
	Gangvara Sandal ..	56	3,584	14	6		15	880	7	10		20	4,462	6	4		Only 5 acres of old plantation is stocked.
	Fraserpet " ...	8	326	15	0		...	274	4	6		3	601	3	6		
	Vadarane " ...	50	438	0	0		...	...	...	...		...	438	0	0		Plantation failed.
	Herikere " ..	21	620	7	11		...	608	8	8		6	1,229	0	7		15 acres failed.
	Hudgur " ...	3	30	0	0		...	90	2	0		1	120	2	0		2 do do
	Nalkere " ...	...	...	...	...		5	492	10	10		5	492	10	10		
	Anekadu Balagodu " ...	11	48	15	0		2½	403	9	4		¼	455	8	4		11 acres on 1st April 1880 is a mistake. 2½ acres failed.
	Tittimatti " ..	7	39	6	8		3	230	13	4		3	270	4	0		7 acres failed but not planted.
	Dubari " ...	3	14	12	0		...	123	0	4		2	137	12	4		1 acre failed.
	Yelsavirshime Kargod " ...	2	15	8	10		...	147	11	6		2	162	4	4		
	Maldare " ...	5	46	12	0		5	223	4	0		2	270	0	0		8 do do
	Karmad " ..	...	...	...	...		5	335	11	11		5	335	11	11		
	Attur " ...	...	...	...	...		1½	57	6	0		1½	57	6	0		
	Nalkere Coupe ...	10	104	4	0		...	254	8	0		5	358	12	0		5 do do
	Dubare do ...	4	27	13	4		..	157	2	8		4	185	0	0		
	Anekadu do ...	...	...	...	...		10	204	7	6		10	204	7	6		
	Total ...	580	35,915	2	9		77	7,166	2	5		327½	43,081	5	2		

Form No. 47.

Area of Forest Tracts protected from Fire during the dry season of 1880-81 (*to accompany Report for* 1880—81.)

Division.	Forest Tracts.	Up to 31st May 1880.					During the dry season of 1880—81.						Total Cost up to 31st May 1881.			Year when protection commenced.	Remarks.
		Area actually protected.	Total Cost.				Area attempted to be protected.	Failures.	Actually protected	Amount expended.							
Coorg Division.	Dubare ...	9,773	1,571	0	0		11,365	2,047	9,318	438	0	0	2,009	0	0	1877	
	Anekadu ...	11,506	2,668	0	0		11,507	...	11,507	152	0	0	2,820	0	0	1876	
	Devamurchi ..	6,449	1,302	0	0		7,569	663	6,906	164	0	0	1,466	0	0	1878	
	Karmad ...	...	159	0	0		229	...	229	18	0	0	177	0	0	1877	
	Yedavanad ...	4,937	898	0	0		7,839	...	7,839	182	0	0	1,080	0	0	1878	
	Ganagur ...	5,828	424	0	0		5,989	...	5,989	95	0	0	519	0	0	1878	
	Nalkere ...	23,200	1,276	0	0		25,742	3,634	22,108	590	0	0	1,876	0	0	1878	
	Mavukal ...	8,168	921	0	0		8,188	1,218	6,970	404	0	0	1,395	0	0	1878	
	Gangvara Sandal Reserve ..	25	22	0	0		50	...	50	5	0	0	27	0	0	1877	
	Arkere ...	...	...	...	..		17,280	2,916	14,364	88	0	0	88	0	0	1878	
	Hatgatnad ...	32,889	1,504	0	0		27,520	6,032	21,488	731	0	0	2,235	0	0	1878	
	Total.....	102,865	10,755	0	0		123,278	16,510	106,768	2,927	0	0	13,682	0	0		

Cost in previous year ...	10,431	0	0
Do in 1880—81 ...	2,832	0	0
Do up to 31st May 1881 ...	419	0	0
Total Rs.....	13,682	0	0

FORM No. 48.

FOREST DEPARTMENT, COORG.

Prosecutions for Breaches of Forest Rules during the year 1880—81.

Forest Division and Civil District.	Injury to Forest by fire.		Unauthorized felling or appropriation of wood and minor forest produce.		Grazing without permission or in tracts in which grazing is prohibited.		Other Offences.		Total.				Remarks.
									Prosecutions.		Convictions.		
	Cases.	Persons	Cases.	Persons	Cases.	Persons	Cases.	Persons	Cases.	Persons	Cases.	Persons	
South Coorg ...	...	...	1	1	...	...	...	...	1	1	...	...	Case dismissed.
North Coorg ...	...	...	1	6	..	...	...	...	1	6	1	3	
Total.....	...	...	2	7	...	...	...	...	2	7	1	3	

FORM No. 49.

Annual Summary of Revenue and Expenditure for 1880—81.

Budget Heads.	Revenue.		
REVENUE.			
I Timber and other Produce removed from the Forests by Government agency—			
a. Timber ...	13,541	3	3
b. Firewood and Charcoal ...	1,518	8	5
c. Bamboos ...	1,560	6	1
d. Sandal-wood ...	34,312	0	8
e. Grass and other minor produce ...	...	...	...
II Timber and other produce removed from the Forests by consumers or purchasers—			
a. Timber ...	7,112	14	8
b. Firewood and Charcoal ...	17	8	0
c. Bamboos ...	1,020	4	4
d. Grazing and fodder grass ...	...	...	...
e. Other minor produce ...	1,355	0	0
Cardamom ...	23,083	10	4
III Confiscated, drift and waif wood—			
VI Revenue from Forests not managed by Governments—			
a. Duty on foregin timber and other forest produce...	...	...	...
b. Revenue from shared and private Forests ...	...	...	...
V Miscellaneous—			
a. Fines and forfeitures ...	21	8	0
b. Refunds ...	166	15	6
c. Other sources ...	4,146	9	8
Total Revenue.....	87,856	8	11

CALCUTTA,
The 24th June 1881.

A. G. HOWEL,
Assistant Comptroller General, (Forests).

FORM No. 49.—*Continued.*

	Budget Heads.	Expenditure.		
	EXPENDITURE.			
	A. Conservancy and Works.			
I	Timber and other produce removed from the Forests by Government agency—			
	a. Timber ...	6,678	14	6
	b. Firewood and Charcoal ...	861	7	6
	c. Bamboos ...	558	9	11
	d. Sandal-wood ...	6,167	6	0
	e. Grass and other minor produce ...	67	8	4
II	Timber and other produce removed from the Forests by consumers or purchasers.			
III	Confiscated, drift and waif wood.			
IV	Revenue from Forests not managed by Government—			
	a. Duty on foreign timber and other forest produce...	...	...	...
	b. Revenue from shared and private Forests ...	...	...	...
V	Rent of leased Forests and payments to share-holders in Forests managed by Government—			
VI	Live Stock, Stores, Tools and Plant—			
	a. Purchase of cattle ...	378	0	0
	b. Feed and keep of cattle ...	1,664	3	7
	c. Stores, tools and Plant ...	774	0	9
VII	Communications and Buildings—			
	a. Roads and Bridges ...	186	7	4
	b. Buildings ...	303	13	0
	c. Other works ...	1	8	0
VIII	Demarcation, Improvement and Extension of Forests—			
	a. Demarcation ...	1,678	6	8
	b. Compensation for land and rights ...	50	0	0
	c. Surveys and working plans ...	214	8	5
	d. Plantations...	7,166	2	5
	e. Protection from fire ...	2,832	7	11
	f. Other works ...	...	...	...
IX	Miscellaneous—			
	a. Refunds ...	...	...	...
	b. Law charges ...	327	6	10
	c. Other charges ...	45	0	0
	B. Establishments.			
I	Salaries—			
	a. Conservators ...	...	...	...
	b. Superior Officers ...	7,600	0	0
	c. Subordinate Forest and Depôt establishments ...	10,705	10	10
	d. Office establishments ...	2,800	13	10
	e. Deputation and special allowances ...	...	...	...
II	Travelling Allowances—			
	a. Conservators ...	...	...	...
	b. Superior Officers ...	2,803	2	6
	c. Subordinate Forest and Depôt establishments ...	1,077	1	1
	d. Office establishments ...	591	5	11
III	Contingencies—			
	a. Stationery ...	31	0	3
	b. Carriage of tents and records ...	219	8	8
	c. Rents, rates, and taxes ...	240	0	0
	d. Pay of police guards ...	...	...	...
	e. Official postage ...	244	5	0
	f. Sundries ...	217	11	11
	Total B, Establishments.....	26,530	12	0
	Grand Total of all Expenditure.....	56,486	11	2

Form No. 50.

Cr. *Account Current for the year* 1880—81. *Dr.*

To Cash Balance on 1st April 1881 ...	...	...	...	...	...	By Expenditure as per details in Form No 49 ...	...	56,486	11	2
„ Revenue received as per details in Form No. 49 ...	...	...	87,856	8	11	„ Deposits	...	0	10	0
						„ Forest Cash Remittances (Local) ...	...	87,956	8	11
						„ Advances recoverable ...	...	28,919	8	11
„ Forest Cash Remittances (Local) ...	...	...	56,800	0	0	Civil Department—				
„ Deposits... ...	...	...	0	10	0	„ Rewards for passing Examination ..	...	320	0	0
„ Advances recoverable ...	...	...	28,026	4	1	„ Closing Balance on 31st March 1881	...	...	...	...
Total.....	...	...	1,73,683	7	0	Total.....	...	1,73,683	7	0

CALCUTTA,
The 24th June 1881.

A. G. HOWEL,
Assistant Comptroller General, (Forests).

Form No. 51.

FOREST DEPARTMENT, COORG.

Statement of Outstandings and Liabilities on account of Contractors and Disbursers for 1880—81.

Division.	Department Debtor.									Department Creditor.									Balance due.					
	At commencement of year.			Recoveries in cash and value of supplies and work done during the year.			At close of year.			At commencement of year.			Payments made during year.			At close of year.			To Department (Outstandings).			By Department (Liabilities.)		
Coorg Forest Division	...	...	...	29,026	4	1	29,026	4	1	180	11	11	28,919	8	11	29,100	4	10	74	0	9	..	...	...
Total.....	...	...	...	29,026	4	1	29,026	4	1	180	11	11	28,919	8	11	29,100	4	10	74	0	9	...	...	...

CALCUTTA,
The 24th June 1881.

A. G. HOWEL,
Asstt. Comptroller General, (Forests.)

Form No. 52.

Statement of Outstandings on account of Revenue, 1880—81.

Division.	Particulars.	Outstanding at the commencement of the year			Value of rents and other revenue during year.			Total.			Amount realized during year.			Balance due to the Department at end of year.			Remarks.
Coorg Forest Division...	...	11,256	2	3	1,01,256	3	5	1,12,512	5	8	* 88,435	5	5	24,077	0	3	* Amount realized as per Annual Summary 87,856 8 11 Amount written off as per Chief Commissioner's Order 578 12 6
		11,256	2	3	1,01,256	3	5	1,12,512	5	8	88,435	5	5	24,077	0	3	88,435 5 5

CALCUTTA,
The 24th June 1881.

A. G. HOWEL,
Asstt. Comptroller General, (Forests.)

Form No. 53.

Statement of Trees felled during the year 1880—81.

Forest Range.	Locality.	Description of Wood.	On hand from previous year.		Felled during current year.		Total.		Disposed of during current year.			Closing balance.	
			No.	C. ft.	No.	C. ft.	No.	C. ft.	How disposed of.	No.	C. ft.	No.	C. ft.
South Coorg ...	Nalkere ...	Teak... ...	...	...	171	...	171	..	Trees squared into logs.	171	...	...	...
		Junglewood ...	...	...	111	..	111	...		111	...	...	...
	Maldare ...	Junglewood ...	...	...	10	...	10	...		10	...	...	...
	Devamurchi ...	Junglewood ...	...	...	5	...	5	...		5	...	...	...
	Ba'lumani ...	Teak ...	...	...	1	...	1	...		1	...	...	...
		Junglewood ...	...	...	45	...	45	...		45	...	...	...
		Total...	...	...	343	...	343	...	...	343	...	...	...
North Coorg ...	Anekadu ...	Teak	...	...	2	...	2	..	Trees squared into logs	2	...	...	...
		Junglewood ...	...	...	170	...	170	...		170	...	...	...
	Dubare ...	Teak... ...	...	...	78	...	78	...		78	...	...	...
		Junglewood ..	...	...	95	...	95	...		95	...	...	...
	Yedavanad ..	Teak... ...	...	...	19	...	19	...		19	...	...	...
		Junglewood ...	...	...	180	...	180	...		180	...	...	...
	Jainkal ...	Junglewood ...	...	...	26	...	26	...		26	...	...	...
	Yelmirishime ...	Junglewood ...	..	.	29	..	29	..		29	...	...	...
		Total.....	...	...	599	...	599	..		599	...	...	...
		Grand Total.....	...	...	942	...	942	...		942	...	...	...

Form No 54.

FOREST DEPARTMENT, COORG.

Statement of logs, sleepers and other scantling cut and exported during the year 1880—81.

Division.	Forest Range.	Locality.	Description of Timber and Scantling.	On hand from previous year.		Cut during current year.		Total.		Disposed of during current year.			Closing balance.	
				No.	C. ft.	No.	C. ft.	No.	C. ft.	How disposed of.	No.	C. ft.	No.	C. ft.
		Nalkere	Teak logs ...	69	3,135	277	8,931	346	12,066	Sent to Húnsúr Depôt ...	281	8,190	65	3,876
			Junglewood logs ...	45	1,471	157	3,897	202	5,368	Do	150	3,528	52	1,840
			Total...	114	4,606	434	12,828	548	17,434	...	431	11,718	117	5,716
		Ballumane	Teak logs ...	4	93	1	14	5	107	Sent to Tittimatti do ...	1	14	4	93
			Junglewood ...	30	841	56	925	86	1,766	Do ...	52	1,061	34	705
			Do poles ...	244	...	192	...	436	...	Do ..	192	...	244	...
			Bamboos ...	482	...	...	...	482	...	Do ..	482	...	...	...
			Firesticks ...	625	..	...	...	625	..	...	...	...	625	...
			Total.....	1,385	934	249	939	1,634	1,873	...	727	1,075	907	798
		Attur	Firewood cart loads ...	...	...	1,712¼	...	1,712¼	...	Sent to Fire-wood do ..	1,712¼	...	...	...
			Total.....	...	...	1,712¼	...	1,712¼	...	...	1,712¼	...	...	...
		Kesavankere	Junglewood logs ...	13	360	...	...	13	360	...	..	...	13	360
			Do poles ...	28	..	...	..	28	...	...	...	...	28	...
			Bamboos ...	1,256	...	6,706	...	7,962	...	Sent to Tittimatti do ...	7,949	...	13	...
			Total.....	1,297	360	6,706	...	8,003	330	...	7,949	...	54	360

Form No. 54.—*Concluded.*

Division.	Forest Range.	Locality.	Description of Timber and Scantling.	On hand from previous year.		Cut during current year.		Total.		Disposed of during current year.			Closing balance.	
				No.	C. ft.	No.	C. ft.	No.	C. ft.	How disposed of.	No.	C. ft.	No.	C. ft.
		Anekadu ...	Teak logs	16	288	5	94	21	382	Sent to Mercara Depôt ...	4	85	12	176
										Do to Fraserpet do ...	5	121		
			Do poles	19	...	...	...	19	...	...	...	...	19	...
			Junglewood logs ...	73	963	195	3,082	268	4,045	Do to Mercara do ...	117	1,896	93	1,314
										Do to Fraserpet do ...	58	835		
			Do poles ...	148	...	900	...	1,048	...	Do to Mercara do ..	85	...	813	...
										Sold in Forest ...	150	..		
			Bamboos	...	...	36,053	...	36,053	...	Sent to Mercara do ..	14,785	...	4,980	...
										Do to Fraserpet do ...	16,258			
			Total.....	256	1,251	37,153	3,176	37,409	4,427	...	31,492	2,937	5,917	1,490
		Dukare ..	Teak logs	8	164	410	3,066	418	3,230	Sent to Fraserpet ..	331	1,929	87	1,301
			Do poles	8	...	21	..	29	...	... ..	...	..	29	...
			Junglewood logs ...	117	2,365	116	1,492	233	3,857	Do ...	62	794	171	3,063
			Do poles ...	321	...	8	..	329	...	... ...	...	...	329	...
			Bamboos	...	...	5,100	...	5,100	...	Do ...	1,000	...	4,100	...
			Total.....	454	2,529	5,655	4,558	6,109	7,087	...	1,393	2,723	4,716	4,364
		Kisarahalli ...	Junglewood logs ...	18	492	...	...	18	492	...	...	...	18	492
			Total.....	18	492	...	...	18	492	...	...	...	18	492
		Sidlingapur ...	Junglewood logs ...	9	174	...	...	9	174	...	...	...	9	174
			Total.....	9	174	...	...	9	174	...	...	...	9	174
		Yedavanad ...	Teak logs	9	56	25	398	34	454	Sent to Fraserpet Depôt ...	27	397	7	57
			Do poles	...	...	6	..	6	...	Do to Hudugur do ...	6	...	...	...
			Junglewood logs ...	16	215	230	3,435	246	3,650	Do to Fraserpet do ...	212	3,348	32	302
			Do poles ..	60	...	27	...	87	...	Do to Hudugur do ...	87	...	...	...
			Firewood	...	...	24⅜	...	24⅜	.	Do to Fire-wood do ...	24⅜	...	...	...
			Bamboos	...	...	1,800	...	1,800	...	Do to Fraserpet do ...	82	...	350	...
										Sold in Forest ...	1,368	...		
			Total.....	85	271	2,112⅜	3,833	2,197⅜	4,104	...	1,806⅜	3,745	391	359

Mattigod ...	Teak logs	23	170	...	...	23	170	Sent to Húnsúr do ...	1	39	22	131
	Junglewood	315	7,416	...	...	315	7,416	Do	11	273	304	7,143
	Total...	338	7,586	...	...	338	7,586	...	12	312	326	7,274
Maldare ...	Junglewood logs ...	...	...	12	273	12	273	Sent to Maldare Depôt ...	12	273	...	..
	Total...	...	...	12	273	12	273		12	273	...	...
Yelsavirshime ...	Junglewood logs ...	...	...	32	665	32	665	Sent to Fraserpet Depôt ...	8	188		
								Sold in Forest ...	5	77	...	...
								Sent to Kisaralalli do	19	400		
	Bamboos	...	...	300	...	300	...	Sold in Forest ...	300	...	...	...
	Total...	...	...	332	665	332	665		332	665	...	...
Jainkal forest ...	Junglewood	...	...	33	429	33	429	Sent to Ramaswami kanave Depôt...	31	393	2	36
	Bamboos	...	...	1,305	...	1,305	..	Do ...	630	...	450	...
								Sold in Forest ...	225	...		
	Total...	...	...	1,338	429	1,338	429		886	393	452	36
Devamurchi ...	Junglewood logs ...	...	...	7	161	7	161	Sent to Maldare do ...	7	161	...	..
	Total...	..	..	7	161	7	161		7	161	...	..
	Grand Total...	3,956	18,203	55,710⅝	26,862	59,666⅝	45,065		46,759⅝	24,002	12,907	21,063
	Sandalwood.			Tons.								
	Good wood	...	...	48	...	48	...	Sent to Fraserpet do ...	48	...	...	...
	Inferior wood	...	...	70¼	...	70¼	...	Do ...	70¼	...	...	...
	Total...	...	...	118¼	...	118¼	...		118¼	...	...	...
	Grand Total...	3,956	18,203	55,828⅝	26,862	59,784⅝	45,065		46,877⅝	24,002	12,907	21,063

Form No. 55.

FOREST DEPARTMENT, COORG.

Statement of Timber and other Produce brought to Depôt from the different Forests, Division during the year 1880—81.

Division.	Forest.	Description of Timber.	Number of— Pieces.	Number of— C. ft.	Total of each Division. Pieces.	Total of each Division. C. ft.
Coorg Division.	Húnsúr ...	Teak logs ...	282	8,229		
		Junglewood ...	161	3,801	443	12,030
	Fraserpet ...	Teak logs ...	363	2,447		
		Junglewood logs ...	340	5,165		
		Bamboos ...	17,370	...	18,073	7,612
	Mercára ...	Teak logs ...	4	85		
		Junglewood logs ...	117	1,896		
		Do poles ...	85	...		
		Bamboos ...	14,785	...	14,991	1,981
	Tittumatti ...	Teak logs ...	1	14		
		Junglewood logs ...	52	1,061		
		Do poles ...	192	...		
		Bamboos ...	8,431	...	8,676	1,075
	Maldare ...	Junglewood logs ...	19	434	19	434
	Hudugur ...	Teak poles ...	6	...		
		Junglewood poles ...	87	...	93	...
	Kisarahalli ...	Junglewood logs ...	19	400	19	400
	Remaswamikanave ...	Junglewood logs ...	31	393		
		Bamboos ...	630	...	661	393
	Firewood Depôt ...	Firewood cart loads ...	1,736½	...	1,736½	...
		Total ...	...	...	44,711½	23,925
		Sandalwood.	Tons.			
	Fraserpet ...	Good wood ...	48	...		
		Inferior wood ...	70¼	...	118¼	...
		Grand Total ...	...	...	44,829¾	23,925

Form No. 56.

Annual Account of Timber and other Produce for the year 1880—81.

Particulars.	Pieces. No.	Pieces. C. ft.	Total. No.	Total. C. ft.	Particulars.	Pieces. No.	Pieces. C. ft.	Total. No.	Total. C. ft.
Balance in hand ...	2,795	16,772			Removed by purchasers including Bamboos ...	41,291½	23,114		
Received during the year ...	44,711½	23,925			Used by the Department (Bamboos) ...	375	..		
					Balance in hand ...	5,840	17,583		
Total ...	...	...	47,506½	40,697	Total ...	...	...	47,506½	40,697
	Tons.					Tons.			
Sandalwood ...	...	...							
Balance in hand ...	73¼	...			Removed by purchasers ...	112½	...		
Received during the year ...	118¼	...			Balance in hand ...	79¼	...		
Total ...	...	...	191½	...	Total ...	...	...	191½	...

Form No. 57.

FOREST DEPARTMENT, COORG.

Statement showing the Amount realized on account of the different classes of timber and other produce sold during the year 1880—81.

Description of Timber.	No. of pieces, &c., sold.	Cubic contents.	Amount realized and due on account of sales.			Average amount per log, &c.			Average cubical contents of logs.	Average amount per cubic foot.			Remarks.
Teak logs	428	9,087	8,137	6	6	19	0	2	21	0	14	3	
Do poles	6	...	5	0	0	0	13	4	...	...	...	...	
Junglewood logs	901	14,027	6,180	11	0	6	13	9	15½	0	7	0	
Do poles	166	...	10	8	0	0	1	0	...	...	...	...	
Total.....	1,501	23,114	14,333	9	6								
Firewood	1,835⅝	...	1,309	7	5	0	11	5	...	...	...	...	Per cart load.
Total	1,835⅝	...	1,309	7	5								
Bamboos	38,330	..	1,462	7	1	38	2	3	...	...	...	...	Per 1,000.
Total.....	38,330	...	1,462	7	1								
Grand Total.....	41,666⅝	23,114	17,105	8	0								
Sandalwood.	Tons.												
Good wood	45	...	21,925	2	3	487	3	7	...	...	...	...	Per ton.
Inferior wood	67½	...	12 399	0	8	183	11	0	...	...	...	...	Do
Total.....	112½	...	34,324	2	11								
Grand Total.....	...	...	51,429	10	11								
Deduct—													
Amount due but not realized			1,483	3	9								
Add—			49,946	7	2								
Amount realized on account of former years			975	14	4								
Total sales on account of sales under Budget Head I ...			50,922	5	6								

Form No. 58.

FOREST DEPARTMENT, COORG.

Statement showing the amount expended on the different classes of timber and other produce brought to Depôt during 1880—81.

Description of Timber.	No. of— Pieces.	No. of— Cubic contents.	Expenditure. Timber expenditure under A 1.			Expenditure. Quota of all other expenditure chargeable against timber.			Expenditure. Total amount chargeable against timber.			Average. Amount per piece.			Average. Cubical contents per piece.	Average. Amount per cubic foot.			Remarks.
Fellings.																			
Teak logs ...	718	12,503	440	0	5	227	0	0	667	0	5	0	14	10	17	0	0	10	
Do poles... ...	27	...	3	4	0	1	9	0	4	13	9	0	2	10	...	...	...	...	
Junglewood logs ...	838	14,359	740	15	6	383	5	8	1,124	5	2	1	5	5	17	0	1	3	
Do poles ...	1,127	...	86	2	0	44	8	1	130	10	1	0	1	10	...	...	...	...	
Firewood ...	1,736½	...	296	12	0	153	10	5	450	6	5	0	4	1	..	..	...	...	
Bamboos	51,264	...	283	10	3	146	14	11	430	9	2	8	6	4	...	..	...	...	Per 1,000.
Total	55,710½	26,862	1,850	12	2	957	0	10	2,807	13	0	...	...	...	...	...	...	...	
Collections.																			
Teak logs ...	650	10,775	3,045	0	11	1,574	2	5	4,619	3	4	7	1	8	16½	0	0	10	
Do poles	6	...	1	4	0	...	8	3	1	12	3	0	4	8	...	...	...	...	
Junglewood logs ...	732	13,150	922	7	3	467	2	6	1,389	9	9	1	14	2	17¾	0	1	8	
Do poles ..	364	..	67	14	0	35	3	3	103	1	3	0	4	6	...	...	...	...	
Firewood	1,736½	...	564	11	8	292	5	5	857	1	4	0	7	10	...	...	...	...	
Bamboos	41,216	...	274	15	8	142	4	5	417	4	1	10	1	10	...	...	...	...	
Total	44,711½	23,925	4,876	5	6	2,511	10	6	7,388	0	0	...	...	...	...	...	...	...	
Sandalwood.																			
Good wood ...	48	...	1,553	2	8	311	10	6	1,864	13	2	62	2	6	...	...	...	...	
Inferior wood ...	70½	...	2,273	4	7	457	5	6	2,730	10	1	56	4	9	...	...	...	...	
Total	118½	...	3,826	7	3	769	0	0	4,595	7	3	...	...	...	...	...	...	...	

* Average struck only on 30 tons good wood paid for this year, as the remainder 18 tons were paid during 1879—80.
† Do do 48½ do inferior wood, as the remainder 21½ tons were paid during 1879—80.

Form No. 59.

FOREST DEPARTMENT, COORG.

Statement showing the Revenue derived from and Expenditure incurred on timber and other produce sold to Public Works Department from Depôts during the year 1880—81.

Name of Department.	Particulars of supplies.	Rate. At—	Rate. Per—	Amount of Revenue. Due.	Amount of Revenue. Received.	Amount of Revenue. Outstanding.	Cost to Forest Department. Timber expenses under A. I.	Cost to Forest Department. Quota of all expenditure chargeable against timber, &c.	Cost to Forest Department. Total.	Comparison of Revenue and Expenditure. Surplus.	Comparison of Revenue and Expenditure. Deficit.
Public Works Department, Coorg.	Honne logs ...	85	883	551 14 0	551 14 0	...	140 6 0	56 14 11	197 4 11	354 9 1	...
	Do ...	68	919	459 8 0	459 8 0	...	114 14 0	59 8 4	174 6 4	285 1 8	...
	Nandi ...	10	250	156 4 0	156 4 0	...	91 4 0	16 0 8	107 4 8	108 15 4	...
	Do ...	9	156	78 0 0	78 ... 0	...	19 8 0	10 5 8	29 13 8	48 2 4	...
	Poon ...	2	...	40 0 0	40 ... 0	...	...	...	...	40 ...	...
	Bamboos ...	10	...	0 9 1	0 9 1	...	...	...	...	... 9 1	...
	Do ...	100	...	7 2 3	7 2 3	...	...	...	...	7 2 3	...
	Total....	234	2,208	1,293 5 4	1,293 5 4	...	276 ...	142 13 7	418 13 7	874 7 9	...

Form No. 60.

Abstract showing the Value of Timber and of Live and Dead Stock for the year 1880—81.

Description of Timber and other Stock.	On hand at commencement of the year. No.	On hand at commencement of the year. Value.	Received during the year. No.	Received during the year. Value.	Total. No.	Total. Value.	Sold or otherwise disposed of during the year and allowance for depreciation. No.	Sold or otherwise disposed of during the year and allowance for depreciation. Value.	On hand at close of the year. No.	On hand at close of the year. Value.
Teak logs ...	274	3,562 0 0	650	8,450 0 0	924	12,012 0 0	428	5,564 0 0	496	6,448 0 0
Teak poles ...	54	54 0 0	6	6 0 0	60	60 0 0	6	6 0 0	54	54 0 0
Jungleewood logs ...	674	5,392 0 0	739	5,912 0 0	1,413	11,304 0 0	901	7,208 0 0	512	4,096 0 0
Do poles ...	158	153 0 0	364	364 0 0	517	517 0 0	166	166 0 0	351	351 0 0
Firewood cart loads ...	99	99 0 0	1,736⅝	1,736 0 0	1,835⅝	1,835 0 0	1,835⅝	1,835 0 0	...	... 0 0
Firesticks ...	252	16 0 0	...	...	252	16 0 0	...	... 0 0	252	16 0 0
Bamboos ...	1,289	26 0 0	41,216	824 0 0	42,505	850 0 0	38,330	766 0 0	4,175	84 0 0
Total....	2,795	9,302 0 0	44,711⅝	17,292 0 0	47,506⅝	26,594 0 0	41,666⅝	15,545 0 0	5,840	11,049 0 0

Form No. 60 A.

Abstract showing the Value of Timber and of Live and Dead Stock for the year 1880—81.

Description of Timber and other Stock.	On hand at commencement of the year. No.	On hand at commencement of the year. Value.	Received during the year. No.	Received during the year. Value.	Total. No.	Total. Value.	Sold or otherwise disposed of during the year and allowance for depreciation. No.	Sold or otherwise disposed of during the year and allowance for depreciation. Value.	On hand at close of the year. No.	On hand at close of the year. Value.	Cause of loss and other particulars.
Sandalwood.											
Good wood ...	49¼	19,700 0 0	48	19,200 0 0	97¼	38,900 0 0	45	18,000 0 0	52¼	20,900 0 0	
Inferior wood ...	24¼	776 0 0	70¼	2,248 0 0	94½	3,024 0 0	67½	2,160 0 0	27	864 0 0	
Total	73½	20,476 0 0	118½	21,448 0 0	191¾	41,924 0 0	112½	20,160 0 0	79¼	21,764 0 0	

F. R. DICKINSON,
Assistant Conservator of Forests, Coorg.

Dated 23rd June 1881.

Mysore Govt. Press, Bangalore.—18-8-81.—250.

No. 85 F., dated Fort William, the 22nd January 1883.

From—A. MACKENZIE, Esq., Secretary to the Government of India.

To—The Chief Commissioner of Coorg.

I AM directed to acknowledge the receipt of your Secretary's letter No. 1052—R. F. 110 of the 29th August last, submitting the Report of Forest Administration in Coorg for the year 1881-82, together with your review thereof.

2. In the orders on the Report for 1880-81 attention was drawn to the necessity for submitting revised rules for the Coorg forests under Act VII of 1865. During the year under review new rules were drafted and submitted to the Government of India, with a request that the introduction of Act VII of 1878 into the province might be sanctioned. The Governor General in Council, however, while recognizing the insufficiency of Act VII of 1865, drew attention to the fact that a new Forest Act for Madras was then under consideration, and expressed an opinion that it would be desirable to postpone further action until you should have had an opportunity of judging whether Act VII of 1878 or the Madras Act was the more suitable to the circumstances of Coorg. As the Madras Act has now become law, it is hoped that the report called for will be submitted shortly, with the view of placing the Coorg forests on a satisfactory legal basis at an early date.

Letter No. 510 F., dated the 14th June 1882.

3. No change has been made during the year in the area of the reserves, which remains at 234 square miles. The demarcation of the Ghat forests has now been completed, the last 63 miles of boundary line having been laid out during the year, but several disputes have still to be disposed of.

4. The results of fire-protection may be seen from the following figures :—

					Acres.
Area attempted	...	...	...	...	123,049
Do. protected	...	...	...	...	46,556
			Failures	...	76,493

It will be observed that the failures represent as much as 62 per cent. of the area attempted. These unsatisfactory results are said to be due to the setting on fire of the forests by shikaris and others, none of the fires having run in from the outside. The Governor General in Council agrees with you in considering that the forest staff is to blame for not exercising greater vigilance, and the attention of the Deputy Conservator should be specially drawn to this matter, which is not creditable to his administration of the forests.

With reference to the statement made that much damage does not appear to have been done by the fires, I am to remark that, although the good done by previous protection may not all have been undone, still the destruction of seedlings and the cutting back of the teak must be considered as disastrous, or else fire protection would be a useless measure. If such protection is attempted at all, it must, above all things, be successful; and if complete success cannot be secured over the entire 123,000 acres, the area should be reduced.

5. The area of plantations has been increased from 328 acres to 437 acres; but the planting is reported as unsuccessful in many instances, owing to scanty and unseasonable rainfall and to defective methods of sowing and transplanting. It is also stated in one case that the failure was due to the Forester not understanding the instructions given to him.

6. The working of the Ghat forests is still in an unsatisfactory condition. After the failure of the license system, the plan of leasing the working of the forests to a respectable contractor was tried, but this measure was equally unsuccessful. It is now proposed to work the forests departmentally; but this should, as suggested by you, be done on a small scale only, until it has been ascertained whether the operations are likely to be financially successful or not.

7. The following figures show the financial results for the last five years:—

Year.	Receipts.	Charges.	Surplus.
	Rs.	Rs.	Rs.
1877-78	1,01,015	36,267	64,748
1878-79	52,020	34,829	17,191
1879-80	1,01,786	55,164	46,622
1880-81	87,857	56,487	31,370
1881-82	1,00,364	59,858	40,506
Average	88,608	48,521	40,087

Although the financial results of 1881-82 are somewhat more favourable than those of the previous year, they show no improvement as compared with the average of the last five years, notwithstanding the fact that the gross revenue is higher.

8. The results of the sales of sandalwood may be thus compared with those of the previous year:—

Year.	Amount sold, in tons.	Amount realized.	
		Total.	Per ton.
		Rs.	Rs.
1880-81	112½	34,324	305
1881-82	60¾	14,059	231

It is not clear whether the low prices are due to combination among the purchasers, or to the flooded state of the market; but, in order to test the matter, it is proposed to sell the wood at a suitable station in Mysore, so as to obtain the benefit of a wider competition, if the produce to be sold in 1882-83 should again fail to realize satisfactory prices.

9. On the whole, the results of forest administration in Coorg during the year 1881-82 cannot be considered altogether satisfactory; moreover, the Deputy Conservator's report is not well arranged, and the Governor General in Council hopes that he will succeed in drawing up in future a clearer statement of the work done during each year. For a small charge like Coorg, which in reality only represents an ordinary forest division, it is not necessary to compile a summary of forest administration, and it will be better at once to record the work done under the main heads, as laid down in paragraph 254 of the Forest Department Code.

Appendix showing the discrepancies noticed in the statements appended to the Report of Forest Administration in Coorg for the year 1881-82.

FORM No. 50.

(Area of Plantations.)

The total cost on the 1st April 1881 is shown as Rs. 438 less than what it was on the 31st March 1881 (as entered in the Report for 1880-81). This is due to the omission from the present Report of the entry showing the total cost on the latter date of the Vadarane Sandal Plantation, in which the operations undertaken were described as having failed. The opening balance should always be the same as the closing balance of the previous year.

FORM No. 51.

(Area of forest tracts protected from fire)

Opposite the Hatgatnad and Fraserpet Sandal Reserves, the amount expended during the dry season of 1881 is, owing to a clerical error, entered as Rs. 94 and 9, respectively, instead of Rs. 194 and 19 (to agree with the total of the column).

FORM No. 53.

(Summary of Revenue and Expenditure.)

FORM No. 54.

(Account Current.)

FORM No. 55.

(Outstandings and liabilities on account of contractors and disbursers.)

FORM No. 56.

(Outstandings on account of Revenue.)

These forms do not bear the Comptroller General's signature, as required by paragraph 255 of the Forest Department Code.

In Form No. 53 the total under "B, Establishments" comes to 2 pies more than the amount entered, judging from the figures actually given.

FORM No. 62.

(Account of timber, &c., in depôts and sold locally.)

The quantity of jungle-wood and teak poles removed by purchasers from sale depôts is given as 788 and 85, respectively, instead of 791 and 68 (to correspond with the entries, corrected in manuscript, in Form No. 61).

R. B.—Home Department Press—No. 81—26-1-83—210.

Proceedings of the Chief Commissioner of Coorg, (Forests),—dated 17th August 1882.

READ—

The Coorg Forest Administration Report for 1881—82.

No. 975—R.-F. 102, DATED BANGALORE, 17TH AUGUST 1882.

REVIEW BY THE CHIEF COMMISSIONER.—The Report on the working of the Forest Department of the Coorg Province for 1881—82 is submitted by Mr F. B. Dickinson, through the Commissioner of Coorg. Its submission has been somewhat delayed as the report which was due on the 15th July reached this Office only on the 12th August 1882.

2. The old rules framed under Act VII of 1865 having been found insufficient to meet the requirements of the forest administration, revised fresh rules were drafted during the year and the Government of India was requested to sanction the introduction into the Province of the more recent Act VII of 1878; but the Chief Commissioner has been desired by the Government of India to postpone taking any action till the passing of the new Forest Act of Madras, which is under preparation, and then to report which of the two Acts will be most suitable to the circumstances of Coorg.

3. The total area of the reserved forests at the close of the year under review was 234 square miles, or 149,855 acres, as against 149,270 shown in the return for the previous year. There was no addition made during the year, but the seeming increase in the area is due to the omission in the returns of 1880—81 of the Kattepura forest, measuring 585 acres, as was pointed out in para 3 of the Chief Commissioner's Review of the Forest Report of that year. All the reserved forests, except Urti and Kerti, have been surveyed.

4. The demarcation of the ghat forests has been completed by Mr. Muttanna, the Sub-Assistant Conservator. During the year 63 miles of new line were opened up at an average cost of Rs. 6 per mile: but owing to complaints made by ryots of the alleged inclusion in the demarcated area of portions of land belonging to private individuals, it is deemed necessary to appoint a settlement officer to go over the line and settle the claims advanced by the ryots once for all. The Commissioner will submit a separate report on this, stating when it will be most convenient to take the matter in hand and whether the 2nd Assistant Commissioner may be entrusted with the work, the Forest Department of course being represented by the Assistant Conservator.

5. It is to be regretted that attempts to conserve forests from fire during the year under review were not so successful as in the past three years. Out of the area of 123,049 acres for which protection was attempted, only 46,556 acres were successfully conserved at a cost of Rs. 1,417: the failures amounted to 76,493 or 62·16 per cent of the so-called protected area. The methods of protection adopted during the year are reported to have been substantially the same as in the previous year. The forests appear by the reports to have been fired from within by Shikaris and Kurumbars. This misfortune cannot but be attributed to want of vigilance on the part of the forest guards who were apparently lulled into false security by the absence of fires in the past years. Much damage however does not appear to have been done by these fires as the teak plants burnt down are reported to have thrown up strong shoots.

6. In the report of the previous year the difficulty felt in working the remote and inaccessible ghat-forests was prominently brought to light by the extensive timber thefts committed by license-holders who felled much more wood than they were entitled to do. It was then thought that leasing forests to respectable contractors would work better, but this expectation has not answered as Mr. Chisolm, who has been working the Urti and Kerti forest on contract, has failed to make it pay and has consequently been granted an extension of one year to remove what he has already felled. The only alternative now left is to work the forests departmentally and this will be done experimentally on a small scale although it is doubtful whether the Department will profit by this arrangement.

Proceedings of the Chief Commissioner of Coorg,
(Forests),—dated 17th August 1882.

7. An area of 109½ acres was added during the year to the plantations already in existence, which measured in the previous year 327¾ acres. The working of "Coupes" has considerably increased the timber supply and has enhanced the income from timber sales. But it is a matter for regret that the restocking of these plantations was not so successful as could be desired, the Foresters in charge having failed to understand instructions given them. The planting operations generally are reported to have been not very successful, owing to scanty and unseasonable rain-fall. The rearing of teak in plantations appears not to have answered expectations, owing to defective methods adopted in sowing and transplanting. It is hoped that the experience now gained will lead to better results in future. It may be desirable that Mr. Dickinson should visit the Madras Government Teak plantations of Nelamboor to study the system pursued there of rearing the young teak plants and thus gain a personal knowledge of how far that system might be made applicable to Coorg.

8. The matter of conserving the exhausted unreserved forests or Uruduves should receive the attention of the Commissioner; but the Officiating Chief Commissioner feels that any arrangements made with the object of enabling these Uruduves to recover themselves would be a matter of considerable delicacy, as it should be done without hardship to people who depend on these forests for their supply of fuel, bamboos and vegetable manure, and at the same time without yielding to any unreasonable requests.

9. The Assistant Conservator justly complains of the deficiencies in the present Bane Rules the operation of which frequently conflicts with the interests of the Forest Department and of the Government generally, as portions of valuable forest lands are now allotted as banes to paddy fields. New rules have been framed during the year and are now before the Government of India. When these are sanctioned, it is hoped that the inconvenience complained of will be effectually removed.

10. Of the 21 cases of breach of Forest Rules prosecuted during the year, convictions were obtained in 14 cases and 31 persons were punished. No cases were pending at the close of the year.

11. There were for disposal 146 applications for waste lands during the year under review. Of these 132 were disposed of leaving 14 pending at the close of the year. The Assistant Conservator should in future give, as suggested by the Commissioner, the average duration of each application and the date of that longest pending.

12. The financial results of the year are as follows:—

Receipts	...	...	...Rs. 1,00,363—12—4
Charges	...	...	... „ 59,858— 1—1
			Surplus.....40,505—11—3

The receipts have inreased by Rs. 12,507—3—5 over the income of the previous year, and this is chiefly due to large sales of timber and to heavy fines imposed on timber stealers. It is a matter for regret that only 60¾ tons of sandalwood were sold during the year instead of 120 tons, the annual quantity fixed for sale. The amount realized was Rs. 14,059 as against an estimate of Rs. 43,200. This falling off in the revenue is due to the small quantity of sandalwood sold, the Assistant Conservator having refused to sell the remainder owing to the low rates offered. There appears to have been a combination on the part of merchants to keep the rates down, and the small quantity of Coorg sandal offered for sale has of late failed to attract richer and more respectable merchants especially, as the neighbouring Province of Mysore has been supplying much larger quantities of sandal to the market. Arrangements have been made to remedy this state of things by selling the Coorg wood at a suitable station in the Mysore Province, should the larger quantity that will be offered for sale at Frasarpet this year fail to command a better sale than hitherto.

H. WYLIE, MAJOR,
Secretary.

To—The Commissioner of Coorg.
The Assistant Conservator of Forests, Coorg.

No. 340—53.

COORG COMMISSIONER'S OFFICE,
Dated 9th August 1882.

From

The Commissioner of Coorg.

To

The Secretary to the Chief Commissioner of Coorg.

SIR,

I have the honor to submit herewith the Annual Report of the Assistant Conservator for the year 1881—82 with the following remarks.

2. New Forest Rules were prepared during the year in consultation with the Assistant Conservator; but, though submitted to the Government of India for sanction, they were not introduced, as it was deemed desirable first to judge whether the new Madras Forest Act will be applicable to the circumstances and tenures in Coorg.

3. The area of Reserved forests is 234 square miles. About 200 acres were made over during the year to Mr. Stewart in exchange for other land given up by him.

4. Sixty-three miles of Ghat forest were demarcated during the year at a cost of Rs. 6 per mile, which completes the whole work of forest demarcation. There are however some claims of villagers still to be settled and for which the special services of a Settlement Officer will be needed. The survey of these forests has to be proceeded with. Arrangements have been made for the work being undertaken on contract by Mr. Morrell subject to check by the Superintendent of Revenue Survey, Madras.

5. Another theft of timber on a large scale was brought to notice in the extreme south-western boundary of the Province. The case was complicated by a boundary dispute and a conviction was not obtained on account of the District Magistrate being unable to place reliance on the evidence given by the witnesses for the prosecution. The forest in question was almost unknown to the Forest Department, who have been directed since to inspect it regularly. The Collector of Malabar has been communicated with regarding the needed re-survey of the boundary line.

6. The question of the best method of working the forests below the western ghats has engaged attention. The license system which was once adopted proved to be a failure in the previous year on account of the facilities which it afforded for smuggling under the licenses issued. The system of leasing the forest to a respectable contractor such as Mr. Chisholm has also not answered expectation, as the contractor has been working at a loss. A year's extension has been given to him to remove what he has felled. A small experiment in working the forests departmentally may be made, but the Assistant Conservator apprehends that it may prove expensive on account of the cost of purchasing elephants and maintaining a guard. The timber dealers on the western-coast have the rightly earned reputation of being timber-stealers. They are now chiefly dependent on the timber growing on native estates in Malabar, which are becoming rapidly exhausted owing to their depredations, combined with indiscriminate falling. The severe punishment which some of their number received the previous year for felling in the Coorg forests and the criminal prosecution of two of the leading men during the year under report, though abortive, will, it is hoped, check future thefts of timber in Coorg.

7. The failure of the measures taken for fire protection referred to by the Assistant Conservator is to be regretted. These fires may be set down to sportsmen, who visit the jungle to shoot game, and who light fires for cooking, also to the wild tribe of Kurubars who are inveterate smokers and love to carry a firestick wherever they go. From what the Assistant Conservator has observed and from the small number of convictions it is very apparent that the watchmen employed are unequal to

the task of preventing such infringement of the rules in large forests extending for many miles. He will be called upon to report whether the employment of a special establishment for three months in the year is necessary. Such large jungles admit also of being marked off into convenient blocks by fire-lines, so as to break the spread of fire. Ineffectual as the measures for fire protection have proved compared with those taken in past years, it is satisfactory to note that they have not been attended with such bad results as apprehended. It will be interesting to watch such results, for I was much struck during my inspection of the Nalkere Forest by the absence of teak seedlings, which may be attributable to their being choked by the undergrowth, which the fire has temporarily removed.

8. The following extracts taken from my taluk jamabandi reports may be here given as affording information on the condition of the forests and nurseries in the several taluks, and as given by an officer unconnected with the department.

"The wealth of its forests adds much to the importance of Kiggatnad as a Taluk. It is the source from which the supply of teak timber is drawn. The teak felled after being squared is carted for sale to the Depôt at Hunsúr in the Mysore Territory. The forests extend in length 40 miles north to south, by 20 miles in breadth from east to west. The teak trees resemble those of Mysore and with the exception of a few grand old trees are not to be compared with those of Burmah either in height or number. The particular zones in the forest in which they are to be found are full also of trees of inferior description; and it was also noticed that young teak seedlings are hardly visible probably owing to the want of forest fires to destroy the undergrowth. Felling is now being conducted on the coupe system, that is the trees in a block of 30 acres are cut out with the exception of those left in lines for shade, and the land is afterwards planted out in regular rows with young teak and other seedlings. One such block was being felled this year, and that felled last year had been planted up. Work might be carried on a more extensive scale were the Forest Department independent of the wild tribe of Kurubars for felling and could command more labor. Muhammadan sawyers and laborers might be procured from Hunsúr, Kunigal and Arkalgúd in the Mysore country by giving advances"

"The teak plantations at Karmad—229 acres in extent—are interesting in showing the slow but steady progress made in planting during the seventeen years the Forest Department has been established, and is particularly instructive in indicating the mistakes made which should be avoided in the future. The trees left for shade in the planting of 1869 have choked and kept back the teak saplings, while the plot planted in the open three years ago is overgrown with strong darbe grass. Some of the plantations would be the better of thinning. It has been suggested to Mr. Dickinson that as Nalkeri is in a teak zone, teak plantations should be confined to it and Karmad to hónne (*Pterocarpus marsupium*) and jungle jack (hebbalasu.)"

"The teak nurseries at Nalkeri, Karmad and near Tittimatti did not appear to be large enough or sufficiently flourishing. A number of plans were being tried, but none with any great degree of success. Mr. Dickinson agrees with me that it would be advisable that he should visit the famous Nellambur teak forests so that he may be able to see the system pursued there and judge for himself how far it might be made applicable to Coorg. It has also been suggested to him that he should write to Burmah for teak seed, and ascertain the system followed there."

"The site for the proposed saw mills at Nalkeri was inspected. There is a good site for a dam across the Nagarahole close to the Bungalow and there will be sufficient water for driving a large wheel till the end of November. Much branch timber is now left in the jungles which might be turned to good account for lathes, rafters, door-posts, ploughs and the like. A considerable saving in carriage may also be expected by transporting only sawn timber especially if the timber yard is removed as is proposed to Seringapatam. A Gladstone steam-saw might also be purchased for trial, as the present plan of felling timber is slow and imperfect and the Assistant Conservator is at the mercy of the Kurubars who threaten to leave if not allowed to cultivate kumri."

"Mr. Dickinson has been most successful in his sandal nurseries. All of them are flourishing. Many of the seedlings planted out this year have however failed owing to the short duration of the monsoon."

"It would be desirable that the Forest Department should be required to improve the road leading from Tittimatti through Karmad to Nalkeri. It is only a bullock track and must be impassable in many parts during the rains especially where it crosses paddy flats."

"The Reserved forests in the Yedenalknad Taluk are not large. They are deciduous and consist of Maldare on the Siddapur road at the frontier, and of the Devamachi to the south-east. There is a small depôt at Maldare. There is little or no teak. At the foot of the Periyambadi Ghat is the Kakatur and Urti jungles—also the lands on the ghat resigned by Mr. Fowler. There is a small plantation of teak near the boundary. These jungles contain some fine poon trees."

"The forests of the Nanjarajpatna Taluk are the Anekadu 5 miles from Fraserpet on the Mercara road, the Atturkadu on the Somavarpet road and the Jenkalbetta near Ramaswamikanave. They do not contain much valuable timber; but great tracts are composed of stunted and crooked

Nandi and Matti trees of little or no value. There are however some good portions with fine high forest which admit of being worked by coupe. The wood and bamboos felled would find a ready sale in the Arkalgúd Taluk of Hassan and at Kodlipet. The Mercara and Fraserpet depôts are now supplied with wood from the Anekadu and Dubare Forests, the latter in the Mercara Taluk. The ryots complain much of the inadequacy of the forests allowed to them as Urudves. They certainly stand in need of a supply of the harder wood for ploughs. Branch wood would do. They might be permitted to cut the quantity as per passed requisitions in the poorer parts of the reserved forests under supervision. The Assistant Conservator has been addressed on the subject. Two sandalwood plantations have been formed, one at Fraserpet and the other near Ramaswamikanave."

"There is a large Reserved forest in the Yelsavirshine Taluk in the north of Coorg extending for 12 miles at the back of the Malambi peak composed of deciduous reserved trees, but most of them are stunted or crooked and of comparatively little or no value. There are sandal plantations at Gangavara and Kargod, both of which are not so flourishing as those in South Coorg."

9. It must be owned that the condition of the Unreserved forests is not what they should be from a conservancy point of view. While the villagers are very sensitive as to the slightest restraint being placed on their privileges, it is difficult to make them understand the need of such restraint, and more difficult still to obtain their gratuitous labor in return for a gratuitous supply of good wood. The proposal made to place these forests under the Forest Department is receiving attention. It may be found necessary to close portions of them and to supply the requirements of some of the villagers from Government forests at reduced rates.

10. The alienation of forest land as báne, referred to by the Assistant Conservator, has been prohibited for the past two years, pending the introduction of the new rules, which will place the whole matter on a better and more satisfactory footing. Due notice has been taken by the Revenue authorities of the cases to which Mr. Dickinson more immediately refers.

11. The prompter disposal by the Assistant Conservator of applications for waste lands is satisfactory. The number in arrear being only 14, as compared with 51 brought over from the year previous. The information would be more complete, were the average duration of these applications and the date of the longest pending added. The number of such inspections is given at 132, which is sufficiently indicative of the extent of miscellaneous work to be done in a small but well wooded Province.

12. The financial results compared with those of the previous year are as follows:—

	1880—81.	1881—82.
Receipts ..	87,856 8 11	1,00,363 12 4
Charges ..	56,486 11 2	59,858 1 1

13. It will be seen that the receipts are more by Rs. 12,507—3—5 which is due to larger sales of timber in depôts, to certain forests which were leased to Mr. Chisholm and to heavy fines which were levied on timber-stealers by the Criminal Courts and credited as directed to the Forest Department.

14. The receipts would have been greater had it not been for the restricted sale of sandalwood, only 60¾ tons realizing Rs. 14,059—5—4 having been disposed of, against 126¾ tons in the previous year from which Rs. 34,324—2—11 were realized. The price at the same time fell from Rs. 305—1—7 to Rs. 231—6—10 the ton. The Assistant Conservator attributes the fall in price chiefly to combination among traders few of whom attend the sales at Fraserpet. But it is in my opinion due more to the flooded state of the market, consequent on large sales by the Mysore Government. If these are maintained, it will be necessary to be prepared for a sacrifice. The lower prices may eventually have the result of increasing the demand. The real market for the wood is at Bombay, and as the dealers export nearly the whole of it to the Western Coast for shipment and extraction of the oil, the proposed change in place of sale, advocated by the Assistant Conservator, requires to be carefully considered.

15. It is satisfactory to notice that the arrangements made for the collection of sandalwood have worked well, 126¾ tons having been brought to depôt against 118¼ tons in former years. The cost of collection has at the same time been reduced, from Rs. 40 and Rs. 44 to Rs. 32 and Rs. 36 per ton. The cost of preparation inclusive of Depôt Establishment is not given.

16. The actual realizations by sale of timber came to Rs. 19,745—3—6 or Rs. 6,193—3—11 more than in the previous year. Bamboos and poles were sold from the depôts to the amount of Rs. 5,024—7—6 against Rs. 1,477—15—1 in the previous year. Prices were fully maintained especially for honne (*Pterocarpus marsupium*) for which there is reported to be a steady demand.

17. The sum realized from cardamom leases came to Rs. 21,472—11—6 or Rs. 69—6—9 more than in the previous year. Leases for the privilege of cultivating this valuable spice in the Ghat forests are granted to respectable ryots for a period of seven years. The whole arrangements for granting the leases and for collecting the revenue are in the hands of the Revenue Department, but the amount so collected is credited under the head of Forests.

18. In a similar manner the Revenue Department affords material assistance in collecting large sums under the head "Other Sources," on account of the value of timber on waste lands sold by auction and on unauthorized coffee gardens opened in Urdves (village forests), also seigniorage on trees which have been unauthorizedly cut on Government lands. The amount realized from such other sources amounted to Rs. 26,913—0—7. The right of collecting forest produce consisting of honey, gall-nuts, tamarind and soapnut are leased out annually. The receipts came to Rs. 2,125--4--6 against Rs. 1,726—12—0 in the former year.

19. The ratio which charges bear to receipts is heavy being 59·66 per cent. It is however less by 4·63 than in the year previous.

20. Mr. Dickinson has placed on record the increased amount of support received from the Revenue officials. The need of such co-operation is obvious. The very wealth of wood, with which the country abounds, leads to extravagance on the part of the village communities in their demands, and they are apt to view with some bitterness of feeling all restrictions placed on encroachments and upon the felling of valuable timber. It is hoped that the steps which have been and are being taken to demarcate Reserved forests and to define the rights of villagers in them, in village forests, and in bánes as described in paras 9 and 10, may conduce to the effectual settlement of disputed points and enable the members of the Forest Department to work harmoniously not only with the Revenue officials, but with the ryots of the country, who form the bulk of the population.

I have the honor to be

Sir,

Your most obedient Servant,

W. HILL,

Commissioner.

ASSISTANT CONSERVATOR'S REPORT

Report on the Forest Administration of Coorg for the year 1881-82, *by* F. B. DICKINSON, ESQ., *Assistant Conservator of Forests.*

I have the honor to submit the Annual Report of the Coorg Forest Division for the year 1881—82.

CHAPTER I.—SUMMARY OF FOREST ADMINISTRATION.

1 AREA AND BOUNDARIES.

No change has been made in the area of the Eastern forests, a few small tracts have been marked off as suitable to join on to the reserves, and are awaiting settlement before being incorporated in the reserves.

2. The demarcation of the Ghat forests has progressed satisfactorily under Mr. M. Muttanna, and is now completed with the exception of a few disputed points which will it is hoped be soon settled.

3. The line previously cut has been slightly altered in several places during the year owing to complaints made by ryots that their land was included. It is hoped that most of such wrong inclusions have been rectified. But it has been proposed that a sufficient notice, say six months, shall be given for the receipt of any more complaints, and that after that none shall be received. Unless some limit is made to the time in which complaints will be received, the line will never be settled. It must be observed that the wrong inclusions are entirely due to the absence of the holders of the land at the time of demarcation, although due notice was always given to them to be present and point out their boundaries.

Mr. Muttanna has made a sketch map of the line made this year. It is 63 miles in length, and has cost an average of Rs. 6 per mile which compares favorably with previous year's work.

4. The demarcation lines of the Eastern forests have all been cleared and as they have been surveyed and mapped they are sufficiently well determined.

2. PROTECTION AND IMPROVEMENT.

5. Fire protection has been very unsuccessful this year, especially in South Coorg. The cause was the number of shikaris frequently roaming about the forests who appear to have purposely fired the forest. Unfortunately only a few persons were caught in the forest, and these are being prosecuted for trespass.

6. The arrangements for protecting the forest from fire were the same as for last year except that some of the middle lines the burning of which seemed to have rather endangered the forest than protected it, were not used. All the arrangements were complete and the lines well burnt by the end of February. In the first days of March reports were received from all parts that innumerable fires had broken out. As fast as one was extinguished another broke out till in a short time the establishment was almost helpless. The Assistant Conservator was unfortunately unwell for a fortnight just at the critical time, and when he was able to get about the mischief had already been done. None of these fires came from the outside, all criginated within the forests, and the worst feature of the matter is that no culprits were brought to book. Only a few trespassers shooting in the forest were arrested.

7. The results of the fires are not of great consequence. Teak plants have been burnt down it is true, but are shooting up again vigorously. And on the other hand an enormous quantity of soft wooded plants which were choking the teak have been also burnt down and do not appear to shoot up again so fast as the teak. This observation naturally requires confirmation, but that is the impression the burnt areas give one at present.

8. Portions protected for two or three years and burnt this year, show teak plants burnt down of much larger size than in portions which burn yearly.

9. Planting operations generally were not very successful owing to short and unseasonable rain. But all the plots planted are half stocked with one or two exceptions, and will be easily supplied up this season.

10 The same system of each Forester planting a small piece was followed. With the object of keeping them employed during the monsoon and stimulating emulation amongst them, each man has now a small sandal plantation and a timber felling or coupe as they are called for convenience.

11 He has to get all the timber and every thing saleable out of his coupe and then plant it up. This is done in alternate strips of 21 feet broad, every other strip being planted up with 3 lines at 8 feet apart and plants in the lines at 8′ apart. The two outer lines are generally teak and the middle one honne (*pterocarpus marsupium*). The intervening strips are left in jungle with the object of saving in weeding.

12. It is found that by this means of each Forester making a "Coupe," it is practicable to get much more material to market. This year the system having been more fully developed, it will be seen that the revenue from timber has been considerably improved. And this is the more satisfactory when it is considered that the increase is almost entirely derived from new sources of supply. For instance the Hunsúr Depôt instead of being supplied entirely from Nagarhole, this year derived its supplies from no less than five forests.

13. The measures taken for restocking the coupes were not very successful owing to the Foresters not having got up good nurseries. But they are beginning to understand what is required, and our future operations will it is hoped be more successful.

14. The system of rearing teak plants hitherto pursued in Coorg appears to have been faulty. The seed was put down too early so that when the time for transplanting came the plants were too large, and their roots had got to the "Carrotty" stage. The Deputy Conservator in charge of the Nilambu Teak Plantations was consulted. He very obligingly furnished us with rules for making teak nurseries. From these it appears that the seed should not be put down till the beginning of April.

15. The regular teak plantations were not extended. The work in them was confined to supplying and weeding, the latter consisting principally of freeing the teak lines by cutting down the weeds a couple of feet on both sides of the plants.

16. About 59¼ acres of new clearings were planted up with sandal which is about half stocked and will be supplied up this year. The best results obtained are from sowing sandal seed with togari, *cytesis cadjan*, in lines, and removing the surplus plants the second year. It is intended to follow this plan more generally this year.

17. *Breaches of Forest Rules.*—Two important cases of theft of timber in the Ghat forest. The first one was pending from the previous and noticed in the Progress Report of that year. The accused in that case appealed against the decision, but the appeal was dismissed. The 2nd case was instituted in November last, it appeared to be a simple case, and was given to the Sub-Assistant Conservator to conduct; but it turned out somewhat complicated, and our side was decidedly the inferior in legal talent, the result being that the accused got off, although there is little doubt of their guilt. It is hoped that these prosecutions will have a deterrent effect on timber stealing in future.

18. The Rangers and Foresters do not fully see the necessity of prosecuting persons for trespass; it was necessary on one occasion to give repeated orders about a case before the prosecution was instituted. It is also to be regretted that the Taluk Magistrates are in the habit of giving very inadequate punishments for such offences.

19. The new Forest Rules for Coorg were drafted at the commencement of the year, but have not yet been confirmed. This is unfortunate, as we are at present in a state of transition, many of the old established customs require definition and have been provided for in the new rules. There is a tendency in Coorg to dispute the old customary rights which Government retained in wooded lands, and is therefore advisable to define them.

3. YIELD AND WORKING.

20. It is one of the chief objects of the Department in Coorg to work its forests more systematically, and to get a better revenue from its timber than has hitherto been obtained. During the year under report the improvement in this respect has been satisfactory. The number of logs extracted and brought to depôt was 2,889. There were 1,008 logs in stock, of these 2,106 logs were sold for Rs. 19,691—0—7, leaving 1,791 logs in depôt valued at Rs. 19,688.

Bamboos and poles were sold from depôts and forests to the amount of Rs. 5,024—7—6. Almost the whole of these materials were the produce of "Coupes," which will be re-stocked. The value of the materials obtained per acre in these "Coupes" was Rs. 121, but there was a great variety for instance in Nagarhole, it was Rs. 388; whereas in the poorer forest of Maldare it was Rs. 20.

21. Although the sales of timber have been considerably increased, no falling off is as yet perceptible in the rates obtained. Another satisfactory feature in the year's transactions is the considerable proportion of timber other than teak which has been sold at a profit.

Honne (*Pterocarpus marsupium*), which grows freely and attains goodly dimensions in the South Eastern forests, fetched very fair prices. This makes the systematic working of the forests a much more feasible question than if teak were the only remunerative tree.

CHAPTER II—RESERVED FORESTS.

22. The areas of the Reserved forests are given in Statement No. 49. There are 14 gazetted forests aggregating 234 square miles. Of the portions thrown out of the reserve for coffee cultivation, about 200 acres has been given to Mr. Stewart in exchange for other land given up by him. If the bit turns out large enough when the result of the survey is known, the whole of the land due to him for exchange will have been given, and it is to be hoped that in future it will not be thought advisable to grant any more exchanges.

23. The rest of the land thrown up is to be put up to auction. It is hoped the preliminary arrangements will soon be completed so that they may be offered for sale with as little delay as possible.

24. Several pieces of forest available for incorporation with the reserves have been marked off, but as the ryots oppose the taking up of any more forest, it is proposed that their claims shall be settled by a Settlement Officer, and these pieces of forests are thus kept in abeyance. They aggregate some 10,000 acres.

25. *Ghat Forests.*—The Urti and Kerti forests were, as stated in para 7 of last year's report, leased by Mr. Chisholm. He felled 115 poon trees, 71 white cedar, 8 red cedar and 51 teak.

He complains that he has not been able to work the thing at a profit, and a year's extension has been given him to remove what he has felled, which is lying in the forests and in the rivers. Thus a year's rest will be given to these forests.

26. *Working of the Ghat Forests in future.*—It does not seem likely that any European with the necessary capital will come forward to work these forests in future after Mr. Chisholm's failure to make it pay.

It is therefore under consideration whether it would pay to work them departmentally. There are many objections to this. A large outlay would have to be made on the purchase of elephants Timber would frequently be stolen in transit down the river, and to prevent this watching establishments would have to be entertained. Then it is doubtful whether the prices obtained for the timber would leave a sufficient margin for profit. There is however nothing to prevent the plan being tried in a small way, to enable us to judge if it can be made to pay.

27. The case of theft of timber in the Arakomale forest was, as stated in para 17, brought to a fortunate conclusion. The 2nd case of theft in the Ghat forest was committed in a small piece of forest called the Kipalli Forest situated on the right bank of a river rising on the western slopes of the Brahmagiris. It had been altogether lost sight of by the Coorg officials, and the Forest Department had no knowledge that there was any workable forest in that neighbourhood. Suspicions were first aroused by a number of logs being seen at Beliyapatam, the mouth of the river draining the western slopes of the larger portion of the Coorg Ghats, which were said to have come from the Kipalli side. Enquiries were then set on foot and the thefts came to light. The case was however complicated by a mistake having been made in demarcating the boundary when the survey was made by the Coorg Revenue Survey 5 or 6 years ago. The old boundary was said by both Coorgs and Malayalis to go along the right bank of the river, whereas the Survey placed the boundary stones across the face of the hill at a distance of a mile to a mile and a half from the river.

It was owing to this discrepancy that the case fell through, and it will now be necessary to have the boundary properly settled. It is believed that the Commissioner has communicated with the authorities in Malabar with this object.

28. The revenue obtained from these Ghat forests was Rs. 10,027-14-8 including the amount realized on confiscated timber in the first theft case Rs. 5,500 and fines inflicted on the offenders Rs. 2,027-14-8.

The total revenue during the last 4 years has been Rs. 18,930-0-0; this from an area of about 30 square miles. We can thus afford to put something back in the shape of plantations especially as conservancy and protective measures are not very expensive. As therefore the teak plantations between Urti bridge and Kutompole, although totally neglected from the time of planting, still show some bits which have come on very well, and as there is a large piece of forest near the river from which every stick of any value has been long extracted, it was proposed to extend the plantation, and a clearing of 45 acres has accordingly been made opposite the Forester's hut at Kutompole, which it is hoped will be successfully planted up.

Labor being expensive the estimated cost of planting and weeding during the first year is set down at Rs. 80 the acre.

29. The North Coorg Ranger made a tour through the Ghat forests of North Coorg with a view to finding out if no thefts are going on there. He examined all the Ghat forests in North Coorg with the exception of the Horamale Forests which will be examined next year.

He reported that no fellings have been made recently in the forests on the Coorg side of the boundary, but some old drag paths are visible. The rivers proceeding from these forests appear not to be very practicable for floating. It will however be necessary to examine them more carefully next season if possible.

DETAILED ACCOUNT OF WORK IN DECIDUOUS FORESTS.

30. *Nalkeri Reserves.*—A coupe of 30 acres was made in Amaletittu, from this 499 logs were extracted, and there is a still a considerable quantity of small wood for which there is always a good sale. The coupe is being lined ready for planting.

31. *In Bungalow Coupe No. I.* planting was completed, but the Forester allowed it to be burnt. Although strictly ordered to make a fire-line round it he neglected to do so. As no result was visible from leaving seed bearers, and they interfered with the growth of the young plants, the trees left for seed bearers have been removed.

Bungalow Coupe No. II. still contains a lot of trees which must be got out, before it is planted up.

32. The Kurumbas have not yet been persuaded to try the sowing of teak seed in kumris and no kumri has been made. They do not seem to like the idea, but they may try it next year. They were offered a site of a coupe in which to make

their kumri with the proviso that they would sow teak, but they did not like living so near to the bungalow. Luckily a gang of Holeyas were got from Viranhoshalli in Mysore who do felling, but their work is not so neat as the Kurumbas.

33. Three acres was cleared and planted up with sandal; about 60 per cent of plants are living; vacancies will be supplied up in June 1880's planting. (5 acres) is flourishing, many of the plants are 8' high, and it will not be necessary to weed them after a couple of years.

A clearing of about 3 acres has been made to be planted in the coming monsoon. It is not intended to extend the sandal plantation very largely here, as in a year or two all the Foresters' time and energy will be taken up with the restocking of the coupes.

34. Fire protection in Nalkeri was an utter collapse. The Forester appears to have given up trying to keep them down, and even allowed the western portion of his forest to burn right through. He states that the fires were innumerable, and appear to have been put in purposely. He was however unable to catch a single trespasser, although several were caught in the adjoining forest. It therefore seems reasonable to conclude that this Forester was not as energetic as he might have been. Indeed the man seems to be irremediably lazy, and he would have been already dismissed were it not so difficult to get any one to replace him.

35. The results of the fire which must have been fiercer than in former years, when it was burnt through yearly, are not so disastrous as one would suppose. True many young teak plants have been burnt down to the ground; but they are sending up vigorous shoots, which will be mostly above the reach of fire next year. On the other hand the amount of rubbish soft wooded plants and young bamboos burnt is very noticeable. It is indeed still doubtful whether the result obtained from the heavy expenditure by fire protection is commensurate with the heavy yearly expenditure. There is also good reason for thinking that the jungle fires are favorable to the germination of teak. It would therefore seem desirable to restrict fire protection in the high timber teak forests.

36. *Hatgatnad Reserve.*—A 30 acre coupe was made near Morkal, and will be called Morkal Coupe No. I. Out of this 123 logs were extracted, of which 93 have been carted to Hunsúr depôt. A lot of saleable small stuff still remains.

Ten acres at Karmad were cleared and planted with sandal; it was very badly planted; only about 20 per cent of the plants survived. 6 acres have been cleared for planting in the coming season. 1880's clearing is doing very well, and is fully stocked.

Clearing out the lines in the teak plantation was continued throughout the year, old jungle trees were girdled, and 1875's bit was supplied up.

37. A large portion of the forest was burnt, and several persons were found shooting in the forest, who will be prosecuted. The Forester delayed their prosecution on the plea that they would revenge themselves by burning the rest of the forest.

38. From several small valuation surveys made in the teak zone of Nalkeri and Hatgatnad it has been found there is on an average about 2½ old over mature teak trees to an acre, and it is roughly estimated that there are 25,000 of such trees in these two Reserves. Further attention has been given to the utilization of these trees. As reported in para 59 of the Report for last year, several attempts were made to get sawyers to go out, but with no success. Two or three gangs went there, but would not remain. Even if they did go it is evident that it would require very large gangs to make any impression on such a large quantity of trees.

It is therefore under contemplation to utilize the Nagarhole stream for a saw mill. Unfortunately this stream would only work a wheel of sufficient size during 4 or 5 months in the year. The machinery would be costly so that before maturing such a scheme it is necessary to make sure that there is a sufficient demand for tim-

ber to make it pay. Now as it is intended to get in a much larger quantity of timber than usual during the coming year, we shall be enable to judge after the sales whether the scheme will pay or not.

39. *Arikeri Reserve.*—A coupe was made in the southern portion. Fire protection was a bad failure in this forest.

40. *Mavkal Reserve.*—A 30 acre coupe was made in Mavaturtittu about 4 miles from the public road to Hunsúr. 361 logs were felled in it, as well as a number of matti poles and some 10,000 bamboos which is a pretty good out-turn for a worked out forest. The area is being made ready for planting.

Three acres was cleared and planted with sandal, in which they were only 20 per cent of failures, although the year was unfavorable for planting.

4¾ acres have been cleared for planting this year. A cart track was made from the public road at Tittimatti to Mavattur and continued to meet one made from Maldare. This forest was pretty thoroughly examined during the year, before fixing on which part to begin regular fellings in, and the more one sees of it, the more plain it becomes how cruelly it has been worked.

But with a regular system it will in time become a valuable forest again. Heavy working of bamboos is desirable as worked out portions are choked up with them, and every thing will be done to induce people to come and buy them from us.

Fire protection although a bad failure was not such a collapse as in Nalkeri and Hatgatnad, owing to the greater energy displayed by the Forester. This Forester M. Kunnyappa has worked well, always doing his best to carry out the orders given him.

41. *Devammachi and South Dubbare.*—The 30 acre coupe made near Maldare was cleared out and is being got ready for planting. The sandal plantation was enlarged by 2 acres, and is now 5 acres in extent, but is only half supplied. The work of Forester S. Kariyappa was most unsatisfactory, and he allowed the plantation to be continually overrun with cattle. As he absented himself without leave, he was dismissed from the Department.

Fire protection was a partial failure owing to the causes already enumerated. Poles and bamboos sold from this forest brought in a satisfactory return.

42. *Dubbare Reserve.*—The work done in the coupe was not satisfactory. Forester Narasimhaiya who has since resigned, misunderstood the orders given him, and felled recklessly over a large area so no regular felling was made. The old coupe at Hanagodu was supplied up, but it is a long way from being fully planted up. This is principally owing to difficulty of getting labor and partly to want of energy on the part of the Foresters in charge. Surrounded as it is by villages at a few miles distance in Mysore, it ought to be easy to get in gangs of coolies to work for a time, but none of the Foresters have as yet succeeded in doing so.

43. The yield of the forest was 102 logs of teak, 91 logs of honne and 68 logs of junglewood. An attempt was again made at floating by rafts, but although with experienced men there is no doubt it could be easily done, it was found the fishermen of the country were not equal to it.

44. The attempt to throw a floating barrier across the Cauvery at Fraserpet was abandoned, as it was found that it could not be done except at a heavy cost which the end in view did not sanction. When the barrier of floating logs was in position it was found that the force of the current took large logs right under it and they re-appeared on the lower side. This might be rectified by a net work of chains moored to the rocks on the bottom but only at a heavy cost, so the idea was abandoned.

45. The Chellikere sandal plantation was enlarged by 2¼ acres*. A bit of open scrub jungle about 8 acres was also cleared, to the left front of the bungalow for planting with sandal in the coming monsoon. Fire protection was a partial failure.

* This area is not shown in the statement of plantation as it is not completely stocked.

46. *Anekadu and Attur Reserve.*—The coupe in Anekadu was extended, but restocking works did not keep pace with the felling, nor was the new area sufficiently cleared of the small inferior materials to be in a fit state for planting up. Coupe No. I was however supplied up and a portion No. II was treated. The difficulty of getting sufficient labor in the planting season is always much felt here.

47. The outlying sandal plantations at Balagodu and Rangasamudram were guarded from cattle, and the former was slightly extended; but it is not intended to extend them further as they are too far off from the Forester's other work, and it is intended to concentrate his energies in the Hurlikal plantation in Attur where the sandal is planted in narrow lines cut in lanthana, and can be thus raised at a small cost, and there being much land adjoining covered with lanthana planting can be extended to any extent.

A small "Coupe" was made in Attur at Sunnadakalmanti from which some teak and firewood were extracted and sent to Fraserpet depôt. This forest is too poor to get much timber out of it, but parts of it, where there is old teak, can be advantageously worked by means of "Coupes" which can be restocked especially as otherwise useless wood can be supplied to the distillery for fuel.

48. *Sandal Plantations at Fraserpet.*—The experimental plantation being fully stocked was only watched and fenced, it is now called the Holegeri plantation, and measures about 3 acres.

49. A bit of gravelly waste land on the north-west of Fraserpet called Gandadagundi about 9 acres was taken up, being useless to any one, as it was covered with lanthana. A lot of sandal had naturally sprung up in it which was supplemented by planting. Big plants from 1" to 2" high were transplanted from the Holegeri plantation where they had come up too thick. They were planted in very unfavorable weather, but although they had 3 weeks' sunning after transplanting only about 25 per cent were ultimately lost. This shows that the sandal plant has great root vitality. Many of the plants which seemed to be quite dried up, shot out again as soon as there was a little rain.

50. *Jainkalbetta Reserve.*—This forest was merely protected from fire. No other work was done except in the Herikere Sandal Plantation which was slightly extended. There is some difficulty in getting labor, but the plantation is doing well on the whole.

51. *Yedevanad Reserve.*—A good deal of timber and bamboos was extracted, the former principally from fire lines. A regular system will have to be inaugurated, as this forest will be one of the chief sources of supply to the Fraserpet depôt.

A temporary line was put round a piece of jungle in some abandoned villages between Hudugur and Harangi adjoining this reserve which does not seem to be required by any one. It awaits settlement by a duly appointed officer along with other pieces similarly situated to other reserves.

52. *Yelsavirshime Reserves.*—No fellings for timber have been made. The Gangvara Sandal Plantation was extended 12 acres, and 47 acres has been cleared for planting in the coming monsoon. The plants are coming on satisfactorily: there were about 30 per cent of failures in the year's planting owing to the unfavorable season. One thousand, eight hundred and eighty's clearing of 15 acres is doing well and is fairly well stocked.

53. The small sandal plantation at Kargodu was extended by about 2 acres, but the work was very slovenly done, and the Head Guard, who had charge of the work, was advised to send in his resignation and he did so.

54. A timber felling has been begun close to Kargodu, with a view to opening a depôt at Arkalgúd in Mysore where it is expected to have good sales. The sandal plantation here will not be much extended as the timber "Coupe" will give the Forester full employment.

55. *Alur and Kattepur.*—Reserves were merely protected from fire. A small sandal plantation is being made at Banavara in the Nidata Reserve.

56. *Mercara Fuel Plantation.*—The area planted last year was supplied up, and about 15 acres more planted. In this there are about 25 per cent of failures. About 20 acres more are ready for planting.

There are about 50,000 plants in the nursery, which will allow of some 10,000 for sale, which will pay something towards the up-keep of the nurseries.

The hill side on which the plantation is made is very bleak being full in the teeth of the monsoon, but the plants are nearly all living and will in time make growth. The damage cattle do is very great and it is not easy to get damages from the owners.

The clearings made this year are more sheltered, and it is hoped will not take so long to come on as bleaker parts.

III. UNRESERVED FORESTS.

57. The Village forests (Urudves) in North Coorg were for the most part examined by the Assistant Conservator or the Sub-Assistant Conservator, and a report was made. But it is feared these forests can never be put on a proper basis under the present system. As the Commissioner lately wrote of them what is every one's business soon becomes no one's business, so as the forest belongs to the whole village no one is really responsible for it, and the consequence is seen in their impoverished state. The Commissioner has therefore asked whether they cannot be worked by the Forest Department, and a report has been lately made to him, proposing to incorporate them with the Reserves and work them as a whole, the Forest Department undertaking the responsibility of supplying the necessary wood and bamboos required by the ryots for their agricultural implements, and also fire-wood.

58. The incompleteness and uncertainty of the Báne Rules, and the system of allowing the Native Revenue officials to apportion báne to paddy fields have led to the alienation of large pieces of valuable forest land out of all proportion to the paddy land. Two or three cases have been reported during the year in which larger area land worth Rs. 50 to 60 an acre has been thus given away for nothing. Báne Rules have been drafted, which will it is hoped settle everything on a proper basis. But in the meanwhile much valuable Government land is getting into private hands, and it has been suggested to put a check on this abuse by making the Parpattegar's and Subedar's demarcation of new báne subject to the Forest Officer's sanction, *i. e.* that the demarcation stones should not be finally fixed till the Forest Officer has inspected the land and given his opinion on it.

59. *Sandalwood.*—The contractors' worked satisfactorily, having brought in 126¾ tons. A new contract was entered into from the 1st January 1882 reducing the rate from Rs. 40 and 44 to Rs. 32 and 36 the ton, and the contractor is working well at these rates. He is to bring in 250 khandis of mature wood and 250 khandis of dry wood.

60. The quantity of sandalwood sold was only 60¾ tons, instead of the estimated quantity, 120 tons. This was owing to the low rates offered by the merchants who combined to keep the rates down. They are able to do this, because the small quantity sold here does not attract the larger merchants; so that the small merchants from Mysore and the locals have got the business in their own hands. Propositions have been made to remedy this by taking the sandalwood to Bangalore for sale; but for the present especially as a larger quantity will be available for sale this year, it has been decided to try the sales once more here.

The prices of sandalwood appear to have gone down slightly even in Mysore; this it is believed is on account of larger sales than usual

61. The enumeration of sandal trees is still going on, the Commissioner having kindly offered to call in the aid of the Patels of the villages. When the results of their enumerations are obtained, it will simply be necessary to check a percentage of them.

62. *Application for Forest Lands.*—The inspection work of these lands has been much lightened by putting it at the discretion of the Forest Officer to take the opinion of the Subedars on building sites. It was in fact proposed to apply this to all small applications, but the Chief Commissioner ruled that all applications for land for coffee

cultivation should be inspected by the Forest Officer or his Deputy. Of these there remained 51 applications from last year, 95 fresh one were received making a total of 146,132 were inspected leaving 14 to be inspected.

GENERAL REMARKS.

63. There have been much fewer complaints against Patels and ryots owing to the Commissioner having made his wishes known. Some cases of neglect too have been promptly punished which has had a good effect.

64. The establishment has on the whole worked well. The failure in fire conservancy must be put down to long drought, enmity towards it on the part of the inhabitants more than to universal carelessness on the part of the establishment. Doubtless there were instances of great carelessness, but it must be remembered what an up hill fight it is, when fires break out in every direction as if by magic, and the guards and coolies get worn out with constant exertion for weeks together. No wonder that at last they lose heart. This is what happened in one case, *i. e.* in Nalkeri where the Forester actually allowed the western portion of his jungle to burn, which used to escape even previous to fire conservancy days except in very dry years.

65. Mr. Muttanna has been a great help to me, and has carried through the demarcation of the ghats with great success in spite of many difficulties. Now that it is finished it would be of great benefit to him to see something of other Provinces where I trust he mey get his promotion and some day get charge of Coorg.

66. Both my Rangers have worked well and energetically. The break down of fire conservancy was a great disappointment to them and I believe every thing was done by them to prevent it. Amongst the Foresters Kunnyappa, a recently appointed one, has given me much satisfaction, he is ready and willing, and does his best to carry out orders. If all the Foresters were of the same stamp, my work would be infinitely more pleasant and satisfactory than it is.

I cannot say much for any of the other Foresters. Atchaiya has done pretty well.

S. Kariyappa was dismissed his post having left his duty without leave. He had utterly neglected his work for sometime back.

Mr. Muttanna's Forester Kaliyandra Kuttappa has been put in Kariyappa's place and K. Devaiya who has acted as Plantation Mutsaddi is made temporary Forester under Mr. Muttanna. Both of them seem to be active young men, and have the making of good Forest Officers.

67. I have had great pleasure in obtaining a second raise of Rs. 5 to my Head and Second Writers and also temporary raise of Rs. 5 to my Third Writer Mr. Francis.

The office work has gone on satisfactorily on the whole though still leaving much to be desired in the matter of punctuality.

MERCARA,
24th July 1882.

F. B. DICKINSON,
Assistant Conservator of Forests, Coorg.

Form No. 49.

FOREST DEPARTMENT, COORG.

Area of Reserved Forests, 1881—82.

Division or Range.	Civil District or Territory.	Name of Forest.	Area on 1st April 1881. Acres.	Area on 1st April 1881. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other heads. Acres.	Area on 31st March 1882. Acres.	Area on 31st March 1882. Equivalent in square miles.	No. and date of Notification of additions or transfer.	Remarks.
Coorg Division.	North Coorg ...	Dubare	11,365	18	...	...	11,365	18		
		Anekadu	11,507	18	...	...	11,507	18		
		Ganagur	5,989	9	...	...	5,989	9		
		Yadavanad	7,839	12	...	...	7,839	12		
		Kattepura	585	1	...	...	585	1		
		Sandalkoti	276	...	...	...	276	...		
		Alur	395	1	...	...	395	1		
	South Coorg ...	Devamuchi	7,569	12	...	...	7,569	12		
		Mavukal	8,188	13	...	...	8,188	13		
		Arkerimad	17,280	27	...	...	17,280	27		
		Hatgatnad	27,520	43	...	...	27,520	43		
		Nalkeri	25,742	40	...	...	25,742	40		
		Urti and Kerti... ...	19,200	30	...	...	19,200	30		Estimated.
		Chembu and Quinal ...	6,400	19	...	...	6,400	10		Do
		Total.....	149,855	234	...	...	149,855	234		

Form No. 50.

Area of Plantations for 1881—82.

Division.	Name of Plantation.	On 1st April 1881. Area.	On 1st April 1881. Cost.	Added during 1881—82. Area.	Added during 1881—82. Cost.	On 31st March 1882. Area.	On 31st March 1882. Cost.	
	REGULAR PLANTATIONS.							
	Karmad Teak ...	189	21,270 12 2	...	471 2 4	189	21,741 14 6	
	Kutampole " ...	50	7,246	...	703 12 ...	50	7,949 12 ...	
	Karepura " ...	4	1,950	...	... ...	4	1,950	
	Merona Fuel ...	10	2,832 15 4	35	1,305 5 6	45	4,138 4 10	
	Tittimatti Teak ...	5	... ...	...	... ...	5	... ...	
	Gangvara Sandal ...	20	4,462 6 4	12	783 4 4	32	5,245 10 8	
	Fraserpet " ...	3	601 3 6	...	139 3 4	3	740 6 10	
	Do Gandadagundi " ...	...	... ...	9	114 15 4	9	114 15 4	
	Herikere " ...	6	1,229 ... 7	7	293 6 7	13	1,522 7 2	
	Hudugur " ...	1	120 2 ...	...	19 14 ...	1	140	
	Nalkeri " ...	5	492 10 10	3	514 12 4	8	1,007 7 2	
	Tittimatti " ...	3	270 4 ...	4¼	309 4 4	7¼	579 8 4	
	Dubare " ...	2	137 12 4	3	26 5 4	5	164 1 8	
	Kuragodu Yelsavirshime ...	2	163 4 4	1¼	66 9 ...	3¼	229 13 4	
	Maldare " ...	2	270	4	158 6 2	6	428 6 2	
	Karmad " ...	5	335 11 11	10	383 9 8	15	719 5 7	
	Hurlikal Attur " ...	1½	57 6 ...	6¼	58 10 4	7¾	116 ... 4	
	Anekadu Balagodu " ...	¼	455 8 4	...	67 2 8	¼	522 10 10	Abandoned on account of remote situation.
	Dubare Chillakere " ...	4	185	...	131 5 ..	4	316 5 ...	
		312¾	42,08 1 8	94¾	5,547 0 1	407½	47,627 1 9	
	CULTURAL OPERATION.							
	Hanakodu Coupe ...	...	... ...	¼	17 ... 8	¼	17 ... 8	
	Nalkere " ...	5	358 12 ...	...	141 6 ..	5	500 2 ..	
	Anekadu " ...	10	204 7 6	...	121 4 ..	10	325 11 6	
	Murkal Hatgatnad " ...	...	... ...	...	55 1 4	...	55 1 4	New clearing to be planted in 1882.
	Karmad " ...	..	... ...	10	81 10 8	10	81 10 8	
	Mavatur " ...	...	... ...	...	75 7 4	...	75 7 4	New clearing.
	Maldare coupe South Dubare ...	...	... ...	4¼	33 4 0	4¼	33 4 ...	
		15	563 3 6	14¾	525 2 0	29¾	1,088 5 6	
	Grand Total.....	327½	42,643 5 2	109½	6,072 2 1	437½	48,715 7 3	
	Abstract.							
	Regular Plantations ... 4. Teak Plantations ...	248	20,466 12 2	...	1,174 14 4	248	21,641 10 6	
	1. Fuel " ...	10	2,832 15 4	35	1,305 5 6	45	4,138 4 10	
	14. Sandal " ...	54¾	8,780 6 2	59¼	3,066 12 3	114¼	11847 2 5	
		312¾	42,080 1 3	94¾	5,547 0 1	407½	47,627 1 9	
	Cultural Operations. 7. Coupes ..	15	563 3 6	14¾	525 2 0	29¾	1,088 5 6	
		15	563 3 6	14¾	525 2 0	29¾	1,088 5 6	
	Grand Total.....	327½	42,643 5 2	109½	6,072 2 1	437½	48,715 7 3	

Form No. 51.

FOREST DEPARTMENT, COORG.

Area of Forest Tracts protected from fire during the dry season, 1881, *to accompany Report for* 1881—82.

Division.	Forest Tracts.	Up to 31st May 1881.		During the dry season of 1881.				Total cost up to end of May 1882.	Year in which protection commenced.	Remarks.
		Area actually protected.	Total Cost.	Area attempted to be protected.	Failures.	Actually protected.	Amount expended.			
	Bubare	9,318	2,009	11,365	6,491	4,874	64	2,073	1877	
	Anekadu	11,507	2,820	11,507	833	10,674	127	2,947	1876	
	Devamachi	6,906	1,466	7,569	4,259	3,310	157	1,623	1878	
	Karmad	229	177	...	...	...	...	177	1877	
	Yadavanad	7,839	1,080	7,839	183	7,656	178	1,258	1878	
	Ganagur	5,989	519	5,989	311	5,678	129	648	1878	
	Nalkeri	22,108	1,876	25,742	20,186	5,556	188	2,064	1878	
	Mavukal	6,970	1,385	8,188	2,270	5,918	155	1,540	1878	
	Gangavara Sandal Reserve ...	50	27	50	...	50	45	72	1877	
	Arkeri	14,364	83	17,280	16,676	604	78	166	1878	
	Hatgatnad	21,488	2,235	27,520	25,284	2,236	94	2,429	1878	
	Kutampole Teak ...	...	...	...	...	...	83	83	1881	
	Fraserpet Sandal ...	...	...	...	...	...	9	19	1881	
	Total.....	106,678	13,682	123,049	76,493	46,556	1,417	15,099	...	

Charged in previous years	13,263
Do in 1881—82	1,261
Do up to 31st May in 1882—83	575
Total.....	15,099

Form No. 52.

Prosecution for Breaches of Forest Rules during the year 1881—82.

Forest, Division and Civil Districts.	Cases pending from 1880—81.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at close of the year.
		Injury to Forest by fire	Unauthorized felling or appropriation of wood and minor Forest produce.	Grazing without permission on tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.				Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
North Coorg ...	...	2	12	...	3	17	17	11	19	6	32	17	51	...
South Coorg ...	...	...	...	1	1	2	2	2	3	...	...	2	3	...
Arkonale ...	1	...	...	...	...	...	1	1	9	...	3	1	12	...
Kipalli ...	...	...	1	...	...	1	1	...	...	1	7	1	7	...
Total.....	1	2	13	1	4	20	21	14	31	7	42	21	73	...

Form No. 53.

Summary of Revenue, 1881—82.

Budget Heads Receipts.	Total.		
I.—Timber and other produce removed from the Forests by Government Agency:—			
a. Timber	19,745	3	6
b. Firewood and Charcoal	1,124	9	9
c. Bamboos	2,189	10	5
d. Sandal wood	14,053	10	3
e. Grass and other minor produce	7	5	0
II.—Timber and other produce removed from the Forests by consumers or purchasers—			
a. Timber	4,089	4	0
b. Firewood and Charcoal	7	11	0
c. Bamboos	739	13	0
d. Grazing and fodder grass	45	0	0
e. Other minor produce	1,782	14	6
Cardamom	21,916	14	1
III.—Confiscated, drift and waif wood	5,500	0	0
IV.—Revenue from forests not managed by Government:—			
a. Duty on foreign timber and other Forest produce	...	...	...
b. Revenue from shared and private forests	...	...	...
V.—Miscellaneous:—			
a. Fines and Forfeitures	2,037	14	8
b. Refunds	210	13	7
c. Other sources	26,913	0	7
Total Receipts.....	1,00,363	12	4

Form No. 53.

FOREST DEPARTMENT, COORG.

Summary of Expenditure, 1881—82.

Budget Heads.	Total.		
A.—Conservancy and Works.			
I.—Timber and other produce removed from the Forests by Government Agency:—			
a. Timber ...	10,605	8	3
b. Firewood and Charcoal	1,023	13	...
c. Bamboos ...	430	10	4
d. Sandal-wood	4,416	14	8
e. Grass and other minor produce	34	6	...
II.—Timber and other produce removed from the Forests by consumers or purchasers	...	...	...
III.—Confiscated drift and waif-wood	...	...	...
IV.—Revenue from Forests, not managed by Government:—			
a. Duty on foreign timber and other Forest produce...	...	...	...
b. Revenue from spared and private Forests	...	...	...
V.—Rent of leased Forests, and payments to shareholders in Forests managed by Government	...	...	...
VI.—Live Stock, Stores, Tools and Plant:—			
a. Purchase of cattle	500	...	...
b. Feed and keep of cattle ..	2,047	11	1
c. Stores, Tools and Plant	839	2	...
VII.—Communications and Buildings:—			
a. Roads and Bridges	352	15	10
b. Buildings ...	436	5	9
c. Other works	2	4	...
VIII.—Demarcation, improvement and extension of Forests:—			
a. Demarcation	869	2	5
b. Compensation for land and rights ...	46	4	...
c. Surveys and working plans	753	...	11
d. Plantations	6,072	2	1
e. Protection from fire	1,261	3	9
f. Other Works	...	...	...
IX.—Miscellaneous:—			
a. Refunds ...	62	8	...
b. Law charges	1,766	10	10
c. Other Charges	784	15	8
Total A, Conservancy and Works.....	32,305	10	7
B.—Establishments.			
I.—Salaries:—			
a. Conservators	...	...	...
b. Superior Officers	7,800	...	...
c. Subordinate Forest and Depôt Establishments ...	11,283	11	2
d. Office Establishments ...	2,823	10	1
e. Deputation and Special Allowances...	...	...	...
II.—Travelling Allowances:—			
a. Conservators	...	...	...
b. Superior Officers	3,175	7	2
c. Subordinate Forest and Depôt Establishments ...	1,209	6	8
d. Office Establishments ...	473	10	9
III.—Contingencies:—			
a. Stationery ...	...	...	...
b. Carriage of Tents and Records	15	...	...
c. Rents, Rates and Taxes	240	...	...
d. Pay of Police guards ...	...	...	...
e. Official postage	258	5	6
f. Sundries ...	273	3	4
Total B, Establishments.....	27,552	6	6
Grand Total of Expenditure.....	59,858	1	1

Form No. 54.

FOREST DEPARTMENT, COORG.

Dr. *Account Current for the year* 1881—82. *Cr.*

To Balance ...	...	...	...	By Expenditure as per Annual Summary (Form No. 53) ...	59,858	1	1
" Revenue as per Annual Summary (Form No. 53) ...	1,00,363	12	4	" Forest Cash Remittances (Local). Remittance to State Treasury in Coorg ...	99,828	15	11
" Forest Cash Remittances (Local). Remittance from the State Treasury in Coorg ...	60,055	2	0	" Advances Recoverable ...	23,311	2	0
" Advances Recoverable ...	23,144	1	1	" Suspense Account...	81	7	4
" Suspense Account...	81	7	4	" Inter Departmental Transfers. Public Works Department other Branches ...	564	12	5
				" Cash Balance ...	..	..	.
Total.....	1,83,644	6	9	Total.....	1,83,644	6	9

Form No. 55.

Outstandings and Liabilities on account of Contractors and Disbursers for 1881—82.

Division.	Department Debtor. At commencement of year.			Department Debtor. Recoveries in Cash and Value of supplies and work done during the year.			Department Debtor. At close of year.			Department Creditor. At commencement of year.			Department Creditor. Payments made during year.			Department Creditor. At close of year.			Balance Due. To Department (Outstandings.)			Balance Due. By Department (Liabilities.)			Remarks.
Coorg Forest Division ...	...	...	...	23,144	1	1	23,144	1	1	74	0	9	23,311	2	0	23,385	2	9	241	1	8	...	...	...	
Total	...	...	...	23,144	1	1	23,144	1	1	74	0	9	23,311	2	0	23,385	2	9	241	1	8	...	...	...	

Form No. 56

Revenue received and Outstandings on account of Revenue during 1881—82.

Division.	Particulars.	Outstandings at commencement of year.			Value of Sales and other Revenue during year.			Total.			Amount realized during year.			Balance due to the Department at end of year.			Remarks.
Coorg Forest Division ...	Timber and other Produce, &c. ...	24,077	0	3	88,144	15	5	1,12,221	15	8	*1,05,769	13	7	6,452	2	1	* Amount realized as per Annual Summary. Rs. 1,00,363 12 4 Amount written off as per Chief Commissioner's orders of various dates. Rs. 5,406 1 3
Total.....	...	24,077	0	3	88,144	15	5	1,12,221	15	8	1,05,769	13	7	6,452	2	1	Total Rs. 1,05,769 13 7

Form No. 57.

FOREST DEPARTMENT, COORG.

Financial Results of the year 1881—82.

Division.	Timber and other produce removed from the Forests by Government Agency.		Other Revenues.		Formation, protection and improvement of Forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
Coorg	37,120	29,346	63,244	7,470	23,042	1,00,364	59,858	

Form No. 58.

Trees felled by Government Agency during the year 1881—82.

Division.	Trees felled.		Remarks.
	Description.	Number.	
Nalkeri Forest	Teak	384	
	Other wood ...	78	
		462	
Balumani	Other wood	89	
		39	
Dubare	Teak	98	
	Other wood	132	
		230	
Anekadu	Teak	17	
	Other wood	54	
		71	
Yedavanad	Teak	43	
	Other wood	233	
		276	
Hatgatnad Murkal ...	Teak	57	
	Other wood	48	
		105	
Arkeri Lalapura	Teak	26	
	Otherwood	19	
		45	
Mavatur Coupe	Teak	144	
	Other wood	102	
		246	
South Dubare	Teak	39	
	Other wood	21	
		60	
Kibribetta	Other wood	15	
		15	
	Total.....	1,549	
	Abstract.		
	Teak	808	
	Other wood	741	
		1,549	

Form No. 59.

FOREST DEPARTMENT, COORG.

Out-turn of Timber and other Produce cut and collected by Government Agency during the year 1881—82.

Division.	Produce cut and collected.				Remarks.
	How obtained.	Description.	Number or quantity.	Cubic feet.	
Nalkeri	Selection Fellings ...	Teak	407	7,498	
	Do ...	Other wood ...	92	1,382	
	Do ...	Do poles ...	60	...	
			559	8,880	
Bulumani	Do ...	Otherwood ...	45	683	
	Do ...	Do poles ...	252	...	
	Do ...	Bamboos ...	3,800	..	
			4,097	683	
Keravenakere	Do ...	Other wood poles ...	9	...	
	Do ...	Bamboos ...	6,800	...	
			6,809	...	
Hatgatnad Murkal ...	Do ...	Teak	69	1,771	
	Do ...	Other wood ...	54	937	
			123	2,708	
Arkeri Lalapura... ..	Do ...	Teak	32	655	
	Do ...	Other wood ...	24	450	
			56	1,105	
Mavatur	Do ...	Teak	213	4,769	
	Do ...	Other wood ...	148	2,899	
	Do ...	Do poles ...	23	...	
	Da ...	Bamboos ...	12,900	...	
			13,284	7,668	
South Dubare	Do ...	Teak	43	691	
	Do ...	Other wood ...	29	593	
	Do ...	Teak poles ...	52	...	
	Do ...	Other wood poles ...	374	...	
	Do ...	Bamboos ...	11,350	...	
			11,848	1,284	
Malipatna	Do ...	Other wood poles ...	189	...	
			189	...	
Dubare	Do ...	Teak	102	1,678	
	Do ...	Do	1,036	4,898	
	Do ...	Other wood ...	159	2,909	
	Do ...	Bufiboos ...	3,200	...	
			4,497	9,485	
Anekadu	Do ...	Teak	20	162	
	Do ...	Other wood ...	71	11,147	
	Do ...	Teak poles ...	67	...	
	Do ...	Other wood poles ...	148	...	
	Do ...	Bamboos ...	25,505	...	
			25,811	1,309	
Yedavanad	Do ...	Teak	51	989	
	Do ...	Otherwood ...	277	4,458	
	Do ...	Bamboos ...	10,700	...	
			11,028	5,447	
Attur Forest	Do ...	Firewood, Cart-loads...	1,997½	...	
			1,997½	...	
Kibribetta	Do ...	Other wood ...	15	359	
		Total.....	80,313½	38,928	
		Abstract.			
		Teak	1,973	23,111	
		Other wood ...	914	15,817	
		Do poles ...	1,055	...	
		Teak poles ...	119	...	
		Total.....	4,061	38,928	
		Firewood, cart-load...	1,997½	Cart-loads.	
		Total.....	1,997½	...	
		Bamboos ...	74,255	...	
		Total.....	74,255	...	
		Grand Total.....	80,313½	38,928	

Form No. 60.

FOREST DEPARTMENT, COORG.

Timber and other Produce received from Forests in sale Depôts during the year 1881—82.

Division.	Depôt.	Produce received. Description.	Number or Quantity.	Cubic feet.	Remarks.
	Hunsur	Teak	610	14,518	
		Other wood	310	5,607	
		Total.....	920	20,125	
	Tittimatti	Other wood	43	660	
		Other poles	278	...	
		Total.....	321	660	
	Fraserpet	Teak	108	1,482	
		Teak poles	726	3,609	
		Other wood	335	5,342	
		Teak posts	24	...	
		Other wood poles	6[illegible]	...	
		Bamboos	17,8[illegible]	...	
		Total.....	19,101	10,433	
	Averti Depôt	Teak	45	982	
		Other wood	288	4,506	
		Teak poles	10	...	
		Other wood poles	47	...	
		Bamboos	3,675	...	
		Teak poles	405	2,813	
			4,470	8,301	
	Merara	Other wood	19	292	
		Bamboos	17,980	...	
			17,999	292	
	Ramaswamikanave ...	Bamboos	275	...	
			275	...	
	Firewood Depôt ...	Firewood, cart-loads	1,997¾	...	
		Teak posts do	17	...	
			2,014¾	...	
			45,100¾	39,811	
		Abstract.			
		Teak	1,884	23,404	
		Other wood	895	16,407	
		Teak poles	51	...	
		Other wood poles	387	...	
			3,327	39,811	
		Firewood	1,997¾	...	
			1,997¾	...	
		Bamboos	39,776	...	
			39,776	...	
		Grand Total.....	45,100¾	39,811	

Form No. 60.—*Concluded.*

Division.	Depôt.	Produce Received. Description.	Number or Quantity.	Cubic feet.	Remarks.
		Sandalwood.			
Coorg ...	Fraserpet	Good wood	60½	Tons.	
	Sandal Kotl	Inferior wood	66¼	Tons.	
		Total.....	126¾	Tons.	

Form No 61.

FOREST DEPARTMENT, COORG.

Sales of Timber and other Produce cut and collected by Government Agency during the year 1881—82.

Division.	Depôt or Locality.	Produce sold. Description.	Number or Quantity.	Cubic feet.	Remarks.
	Hunsúr	Teak	339	9,722	
		Junglewood	184	4,241	
			523	13,963	
	Tittimatti	Junglewood..	41	833	
		Do poles	166	...	
			207	833	
	Maldare	Teak poles...	54	...	
		Junglewood logs	12	273	
			66	273	
	Frasorpet	Teak	951	5,448	
		Junglewood	348	5,506	
		Teak poles...	14	...	
		Junglewood poles	59	...	
		Bamboos	15,566	...	
			16,938	10,954	
	Avërti	Teak	28	153	
		Junglewood	72	854	
		Bamboos	1,683	...	
			1,783	1,007	
	Mercara	Junglewood	128	1,923	
		Do poles	85	...	
		Bamboos	15,525	...	
			15,735	1,923	
	Ramaswamikanave ...	Junglewood	6	13	
		Bamboos	425	...	
			431	13	
	Firewood Depôt ...	Firewood cart-loads	1,387½	...	
		Locally sold.			
	Mavukal	Junglewood poles	54	...	
		Bamboos	2,550	...	
	Bimanare	Junglewood poles	28	...	
	Devamachi	Bamboos	50,100	...	
	Tittalli	Do	5,400	...	
	Mavatur	Do	11,100	...	
	Kesavamakere	Do	75	...	
	Balumani	Do	525	...	
	South Dubare	Do	500	...	
	Anekadu	Do	1,000	...	
	Maldare	Junglewood poles	444	...	
	Kibribetta	Do logs	15	359	
			71,791	359	
		Abstract.			
		Teak	1,318	15,328	
		Do poles	85	...	
		Junglewood logs	788	13,643	
		Do poles	810	...	
		Firewood, cart-loads	1,387½	...	
		Bamboos	33,199	...	
		Total.....	37,087½	...	
		Sold locally.			
		Junglewood logs	15	359	
		Do poles	526	...	
		Bamboos	71,250	...	
		Total.....	71,791	359	

Form No. 61.

FOREST DEPARTMENT, COORG.

Sales of Timber and other Produce cut and collected by Government Agency during the year 1881—82.

Division.	Depôt or Locality.	Produce Sold.			Remarks.
		Description.	Number or Quantity.	C. ft.	
	SANDALWOOD.				
Coorg.	Fraserpet ...	Good wood	1½	Tons.	
	Sandalkoti ...	Inferior wood	59½	Tons.	
		Total.....	60¾	Tons.	

Form No. 62.

Account of Timber and other Produce cut or collected by Government Agency and brought to sale Depôts or sold locally during 1881—82.

Particulars.	No. or Quantity.	Cubic ft.	Total of each Head. No. or Quantity.	Total of each Head. C ft.
Balance at the Commencement of the year.				
Teak	496	8,249		
Do poles	54	...		
Junglewood logs	512	9,334		
Do poles	351	...	1,413	17,583
Firewood Cart-loads ...	..	...		
Firesticks ...	252	...	252	...
Bamboos	4,175	...	4,175	17,583
Total Balance ...			5,840	
Received from the forests in sale Depôts.				
Teak ...	1,894	23,404		
Do poles ...	51	...		
Junglewood	995	16,407		
Do poles	387	...	3,327	39,811
Firewood Cart-loads ...	1,997¼	...	1,997¼	...
Bamboos	39,776	...	39,776	...
Received from the forest and sold locally.				
Junglewood	15	359		359
Do poles	526	...	541	
Bamboos	71,250	..	71,250	..
Grand Total ..			122,731¼	57,753
Sandalwood remained				
Good wood	52½	Tons.		
Inferior wood	27	Do	79½	Tons.
Received				
Good wood	60½	Tons.		
Interior wood	66½	Do	126¾	Tons.
Total.....			206	Tons.

Particulars.	No. or Quantity.	Cubic ft.	Total of each Head. No. or Quantity.	Total of each Head. C. ft.
Removed by Purchasers from sale Depôt.				
Teak	1,318	15,823		
Junglewood	788	13,643		
Do poles	310	...		
Teak poles	25	.	2,501	28,966
Firewood Cart-loads ...	1,387¼		1,387¼	...
Bamboos ..	33,199		33,199	...
Total.. ...				
Sold locally.				
Junglewood	15	359		
Do poles	526	...	541	359
Bamboos ...	71,250		71,250	...
Total.....				
Total Removed.....				
Balance at close of the year.				
Teak	1,072	16,330		
Junglewood	719	12,098		
Do poles	428	...		
Teak poles ...	20	...	2,239	28,428
Bamboos ...	10,752		10,752	
Firewood Cart-loads ...	610	...		
Firesticks	252	...	862	
Total Remaining ..			13,853	28,428
Grand Total			122,731¼	57,753
Removed by Purchasers.				
Sandalwood	...			
Good wood	1½	Tons.		
Interior wood	59½			
Dirage	...			
Good wood	...			
Inferior wood	1½		62½	
Remaining ...				
Good wood	111½			
Inferior wood	32		143½	
Total.....			206	

Form No. 63.

FOREST DEPARTMENT, COORG.

Timber and other Produce cut, collected and removed from the Forest by consumers or purchasers including pasture during the year 1881—82.

Division.	Produce removed. Description.	No. or Quantity.	Amount of Revenue.			Amount actually realized during the year.			Remarks.
II									
	Junglewood trees	438	3,029	0	0	2,879	8	0	
	Do poles	1,527	1,296	12	0	1,234	12	0	
		1,965	4,325	12	0	4,114	4	0	
II *b*	Firewood—								
	Firewood cart-loads	49	14	7	6	7	14	6	
		49	14	7	6	7	14	6	
II *c*	Bamboos—								
	Bamboos	37,321	736	14	0	710	6	0	
		37,321	736	14	0	710	6	0	
II *d*	Grazing and Fodder Grass—								
	Grazing cattle in Nalkere Forest	...	45	0	0	45	0	0	
			45	0	0	45	0	0	
II *e*	Other Minor Produce—								
	Honey, Bees wax and Sigekayi	...	803	0	0	603	0	0	
	Alalekayi (Myloblam)	...	1,036	12	6	961	0	6	
	Tamarind	...	271	8	0	74	12	0	
	Antvalokayi (Soapnut)	...	14	0	0	14	0	0	
	Cardamom	...	21,472	11	6	20,793	14	8	
		...	23,598	0	0	22,446	11	2	
	Total Revenue under II.....	...	28,720	1	6	27,324	3	8	

Form No. 64.

Revenue derived from, and Expenditure incurred on, Timber and other Produce sold to Public Departments from Depôt during the year 1881—82.

Name of Department.	Particulars of supplies.	Amount supplied. No.	C. ft.	Rate. At—		Per—		Amount of Revenue. Due.			Received.			Outstanding.			Cost to Forest Department. Timber expenses under A I			Costs of all other Expenditure chargeable against Timber, &c.			Total.			Comparison of Revenue and Expenditure. Surplus.			Deficit.			Remarks.
Coorg Public Works Department.	Teak ...	1	27	R.	1	C.ft.		27	0	0	27	0	0																			
	Honne ...	12	306	As	10	„		191	4	0	191	4	0																			
	Do ...	29	410	„	8	„		205	0	0	205	0	0																			
	Do ...	2	55	„	8½	„		29	3	6	29	3	6																			
	Do ...	6	89	„	6½	„		36	2	6	36	2	6																			
	Nandi ...	5	114	„	10	„		71	4	0	71	4	0	...	...	...	289	0	0	87	0	0	376	0	0							
	Do ...	12	182	„	8	„		91	0	0	91	0	0																			
	Do ...	10	287	„	5	„		89	11	0	89	11	0																			
	Do ...	3	53	„	4	„		13	4	0	13	4	0																			
	Matti ...	2	19	„	4	„		4	12	0	4	12	0																			
	Bamboos ...	100	...	Rs.	4	70		5	11	5	5	11	5																			
	Total { Logs ...	82	1542	...		...		764	4	5	764	4	5										376	0	0	388	4	5				
	Total { Bamboos .	100																														

Deduct Surplus (or Deficit)..... ...

Balance for (or against) the Department..... ...

Form No. 65.

Abstract showing the Value of Timber and other Produce at Sub Depôt for the year 1881—82.

Description of Timber and other Produce.	On hand at commencement of the year. No.	C. ft.	Value.	On hand at close of the year. No.	C. ft.	Value.	Difference in value. In favor of the year.	Against the year.	Remarks.
Teak logs	496	8,249	6,443	1,072	16,330	13,936			
Teak poles	54	...	54	20	...	20			
Junglewood logs	512	9,334	4,096	719	12,098	5,752			
Do poles	351	...	351	428	...	428			
Firewood cart loads	...	...	...	610	...	610			
Firewoods	252	...	16	252	...	16			
Bamboos	4,175	...	84	10,752	...	215			
Total.....	5,840	17,583	11,049	13,853	28,428	20,977			
Sandalwood									
Good wood	52½	Tons	20,900	111½	Tons	44,600			
Inferior wood	27	Tons	864	32	Tons	1,024			
Total.....	79½	Tons	21,764	143½	Tons	45,624			
Grand Total.....	5,919½	17,583	32,813	13,996½	28,428	66,601	33,781		

F. B. DICKINSON,

Assistant Conservator of F

Mysore Government Press, Bangalore.

No. 40 F., dated, Calcutta, the 23rd January 1884.

From—A. MACKENZIE, Esq., C.S., Secretary to the Government of India, Home Department.

To—The Chief Commissioner of Coorg.

I AM directed to acknowledge the receipt of your Secretary's letter No. 1258—163 of the 10th November last, submitting the Annual Report of Forest Administration in Coorg for the year 1882-83, with your review thereof.

Areas and Boundaries.

2. The area of the demarcated or Government forests has been reduced from 234 to 233 square miles, in consequence of corrections. No other changes have taken place. The demarcation and survey of the ghat forests are in progress, preparatory to their being added to the Government Forests exhibited in Form No. 49 appended to the Report. During the year under review, a length of 72 miles has been cleared and surveyed.

The boundaries of the eastern forests are all clear, but it appears, from paragraph 6 of Mr. Dickinson's Report, that these areas are not demarcated by boundary pillars. I am to suggest that the erection of such pillars may receive attention at an early date, especially where the forests adjoin private lands.

Working-Plans, &c.

3. An Annual Plan of Operations has not yet been adopted by Mr. Dickinson; but it is hoped that he will do so in future years, as it is necessary that all important works should be properly regulated beforehand. The necessity for formal working-plans depends on the demands made on the various forests. Wherever the demand comes up to, or is likely shortly to equalise or exceed, the supply, a more or less detailed working-plan for a number of years should invariably be drawn up, and, after it has received your sanction, should not be departed from without your permission.

Protection of the Forests.

4. The number of prosecutions for breaches of the forest rules amounted to 13, against 20 in the previous year. In 10 cases convictions were obtained, one was dismissed, and two are pending.

Forest offences are comparatively few in number, which is due to the fact that the people of Coorg are most liberally treated in the matter of timber and other forest produce necessary for their domestic requirements.

5. The results of fire-protection were as follow:—

		Acres.		
Area of Reserved Forests (Form No. 49) ...		148,903		
Area attempted to be protected		123,315		
Failures		16		
Percentage of failures		*Nil.*		
		Rs.	A.	P.
Cost on area successfully protected	Per acre ...	0	0	4
	,, square mile	13	0	0

This is a great improvement on the results of 1881-82, when as much as 62 per cent. of the area attempted was burnt. The favourable results of the year under review are said to be due to an exceptionally wet monsoon, and to seasonable showers of rain which fell early in spring. It appears, however, that the general arrangements for the protection of the areas were more complete than those of the previous year.

Cattle grazing.

6. His Excellency in Council has noticed the statement in paragraph 30 of the Report, giving the number of cattle which the ryots, in accordance with asserted customary privileges, graze in the forests.

It has not been stated in what manner the figures have been arrived at; but, if they are correct, it would appear that some of the State forests are very heavily burdened with grazing, the number being, apparently, about 2 head of cattle per acre in the Yedavanad and Ganagur forests, and about 1½ head per acre in the Devamachi forest. Under these circumstances, it would seem desirable to institute some further and more detailed enquiries before the figures given in Mr. Dickinson's Report are accepted as correct. With two head of cattle per acre grazing in the forests, real forest conservancy would be very difficult, if not impossible.

Reproduction of the Forests.

7. The progress made in planting operations will be seen from the following statement :—

	Area planted, in acres.			Cost, in rupees.	
	At the beginning of the year.	Added.	Total.	Total.	Per acre.
Teak Plantations ...	248	55	303	38,032	126
Sandalwood " ...	114	57	171	15,865	93
Fuel " ...	45	30	75	6,122	82
Total ...	407	142	549	60,019	109
Other Cultural Operations ...	30	10	40	2,165	54
Grand Total ...	437	152	589	62,184	106

In the year 1881-82 the planting was not successful, chiefly owing to a scanty rainfall. During the year under review, on the other hand, the operations suffered from an abnormally heavy monsoon, which caused several nurseries to be flooded, resulting in a scarcity of seedlings for transplanting. On the whole, however, the additions are of fair extent, and the greater part of them are reported to be fully stocked.

Yield and Working.

8. The numbers of timber trees felled departmentally during the last two years are as follow :—

	Teak.	Others.	Total.
In 1882-83	494	1,186	1,680
" 1881-82	808	741	1,549

The number of Sandalwood trees cut during the year 1882-83 is 1,528.

The following quantities of timber were received in and sold from depôts :—

	Timber, in cubic feet.				
	Brought to Depôts.			Sold in Depôts.	Sold locally.
	Teak.	Other.	Total.		
1882-83	15,972	17,988	33,960	40,388	483
1881-82	23,404	16,407	39,811	28,966	359

In addition to the above, a quantity of small pieces, bamboos, and fuel was brought to depôts and sold. On the whole, the operations were conducted on about the same scale during the two years.

The Sandalwood operations, compared with those of previous years, were as follow :—

Year.	Amount brought to depôts, in tons.	Sold during the year.		
		Number of tons.	Amount realised.	
			Total.	Per ton.
			Rs.	Rs.
1880-81	118¾	112¼	34,324	305
1881-82	126¾	60¾	14,059	231
1882-83	117¼	192¼	77,407	403
Total ...	362¼	365¼	1,25,790	344

Considerable fluctuations have occurred in the sales, according to the state of the market; but the total quantity sold during the last three years is almost the same as that brought to depôts, and the average outturn is very near the estimate of 120 tons per annum. The price per ton, which fell considerably during the previous three years, is now almost as high again as it was four years ago.

The quantities of produce removed from the forests by purchasers were small, and the Deputy Conservator does not, for the present, expect any special increase in them.

Financial Results.

9. The financial results were as follow :—

Year.	Receipts.	Charges.	Surplus.
	Rs.	Rs.	Rs.
1882-83	1,38,022	64,782	73,240
1881-82	1,00,364	59,858	40,506
Increase	37,658	4,924	32,734

The year under review shows a marked increase in both the gross and net Revenue: an improvement which is due to the increased sales of Sandalwood and the higher rates obtained for it. The Receipts from the sale of timber are as yet small, and, with the view of increasing them, it is proposed to construct a tramway from Hunsur to the Nalkeri and Hatgatnad forests. On this subject it is presumed the Government of India will receive a special report, in case you determine to proceed with the project.

Appendix showing the discrepancies noticed in the statements appended to the Report of Forest Administration in Coorg for 1882-83.

FORM No. 50.

(Plantations.)

Annas and Pies should be omitted from this form, and only full Acres should be entered (*vide* paragraph 258 of the Forest Department Code).

FORMS NOS. 54, 55, AND 56.

In accordance with the provisions of paragraph 255 of the Forest Department Code, these forms should bear the signature of the Comptroller General.

FORM No. 63.

(Timber and other produce cut, collected, and removed from the Forests by consumers or purchasers, including pasture.)

The "Total Revenue under II," opposite the column "Amount actually realized during the year," is entered as Rs. 22,459, whereas it should be Rs. 24,974 according to Form No. 53 ("Summary of Revenue and Expenditure").

A. R. M.—Home Department Press—No. 60—31-1-84—240.

Proceedings of the Chief Commissioner of Coorg,
(Revenue-Forests),—dated 17th September 1883.

READ—

The Forest Administration Report of the Province of Coorg for the year 1882—83.

No. 988—311, DATED 17TH SEPTEMBER 1883.

ORDER THEREON.—In writing this report Mr. Dickinson has complied with the instructions, as to its form, conveyed in para 9 of the Government of India letter No. 85 F., dated the 2nd January 1883. The report is sufficiently clear and concise, and gives all the information necessary to make it useful as a history for the year of forest work in Coorg.

2. In letter No. 510 F of 14th June 1882 the Chief Commissioner was directed to report whether the Madras Forest Act was more suitable to the circumstances of Coorg than Act VII of 1878, and pending decision of this question the Governor General in Council deferred orders on Sir James Gordon's proposal to substitute the latter Act for Act VII of 1865 and to pass certain rules under it. The Chief Commissioner referred the point for opinion to the Commissioner and Deputy Conservator of Forests, who reported in December last in favor of Act VII of 1878. Their reasons for the preference do not appear very conclusive, and it is a pity that Sir James Gordon was not able to deal with the question before he left, as his great local knowledge would have helped him to a right decision.

The Officiating Chief Commissioner took up the subject soon after taking charge, and has lately had a consultation about it with the Deputy Conservator, but in the end he has thought it advisable to postpone his report till November next by which time he will have marched through Coorg and have seen the forest and the people.

The existing rules passed under the Act now in force have legal force only in forests which have been demarcated and gazetted as Government forests, but within such forests they give the Forest officer most complete power, and prohibit and make punishable every use not allowed by his special order. The Officiating Chief Commissioner presumes that it was intended that only forests practically free of rights should be brought under these rules, but the letter of the Act allows any forest, however much encumbered with rights, to be demarcated and gazetted as Government forests, and these rules apply similarly to all such forests without exception. The Commissioner seems to think that the ghat forests ought not to be made Reserves and that some forest land has been included in them which might have been omitted with advantage. Not having yet seen Coorg Mr. Lyall finds it difficult to form an opinion on the question; nor can it be properly discussed till the Forest law is settled, and the meaning of the word Reserve is thereby determined.

3. The area of the demarcated or Government forests has been reduced from 234 to 233 square miles owing to survey corrections. Beyond this and a slight rearrangement in the order in which the forests appear in Form No. 49, there has been no alteration in the list of so called Reserved forests in Coorg. In the report of the previous year it was stated that the demarcation of the ghat forests was completed, but in default of a survey they have not yet been gazetted and are therefore not shown in the list of Reserves. The surveying contractor surveyed 72½ miles during the year and, according to the Deputy Conservator, would have done more had the ryots given him the necessary aid. In this matter Mr. Lyall feels that the Deputy Conservator can hardly expect the ryots to turn out readily and render assistance in closing the forests against themselves, but he hopes that the Commissioner will be able to prevent this cause of delay, by seeing that the Taluk Revenue officials give Mr. Morrell all the assistance they fairly can.

4. It is satisfactory to learn that the boundaries and fire lines of all the eastern forests have been cleared, and that something of the same kind has been

done elsewhere. The final settlement of the boundary dispute with Malabar, mentioned by Mr. Dickinson, has been effected since he wrote.

5. The Commissioner in his para 5 anticipates the appointment of a Forest Settlement officer to enquire into claims on demarcated forests when Act VII of 1878 is introduced. This will apparently be a necessary preliminary to making these forests Reserves whether Act VII of 1878 or the Madras Act be introduced, and it will probably be advisable to direct the Forest Settlement officer to determine rights also in forest land assigned to villages or to individuals (Urudve and Báne). If so, the forest settlement of Coorg will be a work of some length.

6. The Officiating Chief Commissioner is glad to see that Mr. Dickinson intends to adopt the system of annual plans of operation and working plans for particular forests.

7. The cases of theft reported to have occurred during the year are very few. As to the question of prevention of thefts below the ghats by Moplas Mr Dickinson should submit a separate report if he can devise practicable proposals. The difficulty is partly due to a remarkable difference of land tenure: all the Malabar forests adjoining Coorg are private property, while those in Coorg are all State property. The cases of breaches of Forest Rules were of a petty nature and numbered only 13 against 21 in the previous year. Convictions were obtained in 10 cases, and 45 persons were punished. One case was dismissed, and 2 cases were pending at the close of the year.

The form given at paragraph 20 is as stated in its heading Form No 52 of the Appendix. It is not necessary to repeat the form in the body of the report

8. An attempt was made to protect 123,315 acres from fire during the year, and of this 123,299 acres are shown as actually protected. This unprecedented success in fire protection is, as the Deputy Conservator reports, due to the very heavy monsoon which preserved the forests green till February, and to early heavy showers in March which arrested the drying of the forests. The cost under this head was Rs. 2,446, or Rs. 1,029 more than in the previous year. The increase in the cost is due to the employment of extra guards and to additional precautions taken to ensure success; for, the natural causes which rendered these helps unnecessary and favored the operations of the season could not have been foreseen.

9. The Officiating Chief Commissioner has given Mr. Dickinson permission to lease the grazing of the forests referred to in his para 25. Coorg ryots of adjoining villages having by custom privileges of grazing will graze their cattle free. Lists of such villages and of the cattle owners belonging to them have been prepared as is shown by the statement in the report.

10. It will be seen that the natural re-production of teak appears to be very capricious and uncertain. Mr. Dickinson is continuing his experiments, and will, it is to be hoped, discover the best way of aiding nature. As to the artificial re-production there has been again an insufficiency of plants in the nurseries, but this year the case was generally not drought but excessive flooding. Some, however, of the plantations are doing exceedingly well. The area planted with teak increased according to Form No. 50 by 55 acres and about 150 acres more have been cleared for the purpose.

The failure to plant out a large area in the year appears to have been unavoidable.

The area under sandal plantation has been increased by a third, *viz.*, 56½ acres, and 115 acres more have been cleared. In fact sandal plantation seems to be making very satisfactory progress. Mr. Dickinson mentions an improvement in the making and keeping of nurseries, and remarks that the success is to be ascribed to the greater care bestowed on them by the Foresters in charge, among whom there was a keen competition for the rewards offered for best results.

Proceedings of the Chief Commissioner of Coorg,
(Revenue Forests),—dated 16th September 1883.

11. The Officiating Chief Commissioner has no remarks to offer on Mr. Dickinson's report of experiments and exotics. The importance of the subject appears to be properly understood.

Forest roads and buildings appear to have been well kept up. The proposal for laying a tramway from Hunsur into Nalkeri will be carefully considered. Mr. Lyall proposes to march presently into Coorg along the line of the proposed tramway.

12. The yield of timber during the year was good. The number of logs felled was 2,530 measuring 46,601 c. ft. and the number taken to Depôts was 1,897 measuring 33,960 c. ft. 40,388 c. ft. were sold exclusive of the 1,587½ cart-loads of firewood. The number of bamboos felled was 75,822, the number taken to Depôts was 28,334 and the number sold 80,422. The quantity of sandalwood collected was 117½ tons and the quantity sold 192½ tons.

13. The financial results of the year are as follows:—

			Rs.
Receipts			1,38,022
Charges.	A. Conservancy and Works	35,649	64,783
	B. Establishments	29,134	
		Surplus	73,239

Owing chiefly to the large sales of sandalwood at good prices the receipts are more than in the previous year by Rs. 37,658; and the surplus rose by Rs. 32,733. The ratio which charges bear to receipts has fallen from 59·66 to 46·9 per cent.

14. The Báne rules have been returned to Mr. Lyall for opinion and this he proposes to submit after visiting Coorg in October next. The proposal to divide the Uruduves or village forests into Bánes seems more likely to be popular and successful than the plan of management of village forests by the Forest Department.

15. The report is creditable to Mr. Dickinson who, as usual, worked with commendable zeal and energy, and the Officiating Chief Commissioner is glad that his good services have been tangibly recognized by the Government of India in his recent promotion to the grade of Deputy Conservator of Forests.

H. WYLIE,
Secretary.

To—The Deputy Conservator of Forests, Coorg.
The Commissioner of Coorg.

No. 896—141.

COORG COMMISSIONER'S OFFICE,
Dated 18th July 1883.

From

The Commissioner of Coorg.

To

The Secretary to the Chief Commissioner of Coorg,
Bangalore.

SIR,

I have the honor to submit herewith the Annual Report of the Deputy Conservator of Forests for the year 1882—83 with the following remarks.

2. Act VII of 1865 is still the law under which the forests of Coorg are administered. Its insufficiency to meet requirements having been admitted, it was suggested by the Government of India that the lately passed Forest Act for the Madras Presidency might be found more suitable; but it was found for reasons which have been fully given in my report No. 703—118 of the 13th December 1882, to be unsuited to the circumstances of Coorg, and the introduction of Act VII of 1878 has been recommended in preference. The matter is now before the Government and may be expected to receive early consideration.

3. No change has been made during the year in the area of Reserves, which remained at 233 square miles. A portion of the Siddapur-Mallipatna block of 1,200 acres will be re-included in the Forest Reserve as recently directed, if not taken up as originally designed for coffee cultivation.

4. Progress has been made in the demarcation and survey of ghat forests: the work having been given out on contract to a Mr. Morrell, who has completed 72½ miles. The expediency of including them within the Reserve is open to question, as most of them are now leased out to ryots for the cultivation of cardamoms. They should more rightly be placed under the charge of the Revenue authorities by whom the revenue derivable is collected.

5. It is satisfactory to learn that the boundaries of the eastern forests have been cleared. It has been pointed out to the Deputy Conservator that the demarcation line requires to be thrown back in some parts to meet the requirements of the ryots. The fire-lines might be widened with advantage. The appointment of a Settlement officer to dispose of the claims of ryots to grazing and to lands, which have been wrongly included in the Reserve, will be made on the extension of Act VII of 1878 to Coorg. The forests on the slopes of the Kottebetta, which are referred to by the Deputy Conservator in para 9 of his report, have been visited, and do not appear to be of sufficient importance to justify their being included as Reserved forest. They are better suited for coffee cultivation, which might be allowed under shade, so as not to interfere with the water-supply.

6. I fully concur with the Deputy Conservator as to the advisability of working the forests upon some more definite plan. Until such is done, the operations of the Department can scarcely be regarded as having passed beyond the initiatory stage. The first step needed is the marking off of the forests into convenient blocks in view to the resources of each being accurately ascertained. The services of the Sub-Assistant Conservator might be availed of for the purpose.

7. There is also much force in the observations made by the Deputy Conservator as to the need of strengthening his establishment, and his proposals for doing so will be submitted for favorable consideration.

8. The criminal prosecution of three cases in which Moplas were charged with stealing timber on the Western Ghats will have the good effect of placing a check on such depredations. As the Coorgs think that they only have a right to pick cardamoms, so also do the Moplas on the Western Coast act upon the idea that they only have a right to fell timber in the ghat forests, and while nominally timber dealers, they fail not, whenever opportunity offers, to maintain their reputation of being timber stealers. It was suggested in the last report made on the subject, No. 141—79 of the 30th May 1882 from this office, that the authorities in North Malabar should be requested to co-operate with the authorities in Coorg so far as to fix upon floating stations, and to call upon the traders to register their timber marks. Though the Moplas are the only traders, who are able by recourse to nefarious practices to work the surrounding jungles belonging to natives with profit, it may be expected that those owned by Government will become of greater value, should ever a railway be made from Tellicherry into Coorg.

9. It will be observed that the rights of Government over sandalwood are carefully watched. When land is sold under the Waste Land Rules, all rights in this valuable wood is strictly reserved. The mischief which is done to the trees is generally caused inadvertently, by owners of coffee estates setting fire to their jungles, in which the sandal trees may be growing.

10. The results of fire protection are much more satisfactory than in the previous year, which is justly ascribed by the Deputy Conservator to the green condition of the forests during the hot weather. The fires, which form such a blaze on the hills during the hot weather and which often extend to the Reserved forests, were not so noticeable as in years past. The extra expense of Rs. 1,029—0—0 incurred shows that more was done to guard against risk. Offers of assistance were made by the Revenue authorities, but the Forest Department felt capable of dealing with the matter themselves.

11. The method of working the lease of the grazing of the Anekadu was satisfactory both to Government as well as to the ryots, whose rights were respected and whose interests were consulted by the lessee. It admits of being extended to other parts of the country on similar conditions, care being taken that the ground in the immediate vicinity of the cattle-shed is not too much trodden down.

12. The observations made by the Deputy Conservator as to the production of teak will scarcely meet with the approval of those acquainted with the regular working of plantations in other countries. Demands for the wood may be expected to increase; and though the existing trees which are scattered here and there through the forests may meet present requirements, the growing wants of the future will also have to be studied. As observed in the remarks passed upon the report of last year, I was much struck by the want of teak seedlings throughout the Nalkeri forest; and the plan of felling trees in coups and re-planting the portions felled also did not strike me as very successful on account of the high grass by which the seedlings are liable to be choked. The experience gained by Mr. Dickinson by his visit to the Nelambur forests should prove of value, and should lead to a system which has proved so successful there being followed on a larger scale in Coorg.

13. The area of plantations, it will be observed, was increased from 437¼ to 588½ acres, which is not large, seeing that the Department has been twenty years at work. The failure of the nurseries by floods was unfortunate. Allowance may be fairly made for the severity of the monsoon, and the drought of the previous year: but these are difficulties also met with by coffee planters, who set the Department a praiseworthy example, in that they spare no expense in laying their nurseries out and in maintaining them, selecting the very best spots in their jungles for the purpose, and making them on a scale sufficiently large to meet all possible contingencies. Good progress has been made at Kotampole at the foot by the Periyambadi ghat by an European contractor, but the old portion of the plantation when visited seemed to be of little value. Mr. Dickinson deserves credit for his sandal plantations which are doing well, and are now conducted on a proper system.

14. The following figures show the financial results for the last five years :—

Year.	Receipts.	Charges.	Surplus.
	Rs.	Rs.	Rs.
1878—79	52,020	34,829	17,191
1879—80	1,01,786	55,164	46,622
1880—81	87,857	56,487	31,370
1881—82	1,00,364	59,858	40,506
1882—83	1,38,022	64,783	73,239
Average.....	96,009	54,224	41,785

15. It will thus be seen that a marked improvement in the working of forests and in the surplus revenue obtained from them is perceptible. The Deputy Conservator is confident that the revenue will be maintained and might increase, were improved means of transport available. The average price realized was 10 annas 1 pie per cubic foot, or 7 pies less than in the previous year.

16. The increase in the number of logs felled and taken to Depôt is satisfactory. The quantity felled measured 33,960 cubic feet, to which has to be added 574 logs moved by private purchasers from Government forests. 80,422 bamboos were sold at Depôts and 36,526 cut on licenses. As they abound in the forests, the right of felling them may be leased out yearly. At the foot of the Sampaji ghat large numbers have become valueless from having run to seed. It has been suggested that use might be made of a "Gladstone" saw and large timber carts for the removal of the large teak trees referred to by the Deputy Conservator, until the proposals which he has made for the construction of a tramway from the Nalkeri forest to Hunsur can be investigated.

17. The returns show a saving by the employment of Government carriage of Rs. 425—13—2 ; but additional bullocks will have to be purchased to replace those that died.

18. The results of the sales of sandalwood may be thus compared with those of the five previous years :—

Year.	Amount sold in tons.	Amount realized.	
		Total.	Per ton.
			Rs.
1878—79	33	14,346	434
1879—80	101	35,890	355
1880—81	112½	34,324	305
1881—82	60¾	14,059	231
1882—83	192¼	77,407	402
Average.....	100	35,205	352

19. The quantity brought to Depôt was 9¼ tons less than in the previous year; but, owing to the large reserved stock, greater sales were effected, and the prices realized were considerably better than in the preceding three years. The cost of collection and preparation at the Depôt was Rs. 41—7—7 per ton.

20. The quantity of sandalwood felled is well within the mark. Several dry trees are still to be found in remote places which the contractors rarely visit. The aid of the Parpattegars of Nads will be given for their removal, which may lead to larger quantities being forwarded to the Depôt in future.

21. The rights of collecting forest produce, &c., consisting of honey, gallnuts, tamarind and soap nut, are leased out annually. The receipts came to Rs. 1,996 or Rs. 129—4—6 less than in the previous year.

22. The sum realized from cardamom leases came to Rs. 21,505—7—6 or Rs. 32—12—0 more than in the previous year. Leases for the privilege of cultivating this valuable spice in the ghat forests are granted to respectable ryots for a period of seven years, three of which have still to run.

23. In a similar manner the Revenue Department affords material assistance in collecting large sums under the head "Other sources" on account of the value of timber on waste lands sold by auction and on unauthorized coffee gardens opened in Uruduves (village forests), also seigniorage on trees which have been unauthorizedly cut on Government lands. The amount realized from such other sources amounted to Rs. 6,775—1—9.

24. The ratio which charges bear to receipts is 46·9 or 12·7 less than in the year previous.

25. In conclusion I may observe that judged by results the Department has done very well during the past year. While zealous for the interests of the Department, the officers have worked harmoniously with the Revenue authorities, and though the ryots may in a well wooded country be prone to be guided by the principle that the more they have, the more they should seek, yet they are gradually beginning to see and admit the expediency of non-infringement on the rights of Government.

I have the honor to be

Sir,

Your most obedient Servant,

W. HILL,
Commissioner of Coorg.

DEPUTY CONSERVATOR'S REPORT.

Report on the Forest Administration of Coorg for the year 1882—83, *by* F. B. DICKINSON, ESQ., *Deputy Conservator of Forests.*

I have the honor to submit the Annual Report of the Coorg Forest Division for the year 1882—83.

INTRODUCTION.

The Coorg Forest Division has been under my charge during the year. Sub-Assistant Conservator Mr. Muttanna has been engaged in inspecting land, continuing the demarcation of the ghat forest, *i. e.*, altering the line where necessary, and in other works.

2. In August I went to Ootacamund to consult Mr. Brandis regarding forest legislation in Coorg, and on my return paid a visit to the teak plantations at Nelambur, which was very interesting.

3. Coorg was made a Deputy Conservator's charge at the re-organization of the Department which came into force on the 3rd September 1882.

CHAPTER I.

AREAS AND BOUNDARIES.

4. No change has been made in the area of the eastern forests as given in Form No. 49. Orders have, however, been received to re-include the Siddapura-Mallipatna block, 1,200 acres, into the Arkere Reserve which it adjoins on the west. This order was received after the block had been unsuccessfully offered for sale by public auction on the 26th February 1883.

But subsequently an offer has been made for a portion of it, 226·90 acres, and the re-inclusion has been deferred till this is settled. The small pieces of unattached forest adjoining these Reserves still await settlement. A special report giving their areas and boundaries was made during the year, and it was suggested that a Settlement officer be appointed to settle what portions of them can be taken in. They aggregate about 9,000 acres.

5. The ghat forests not having yet been surveyed, have not been declared Reserved forests, but it seems advisable to do so, so as to protect them more effectually. They are therefore not as yet included in Form 49, with the exception of Urti, Kerti, Chembu and Quinad. Form No. 49 is slightly re-arranged and now shows the forests in their order from north to south.

6. The boundaries of all the eastern forests have been cleared, as well as the fire lines running parallel to them. The space between being burnt every year is gradually getting quite a different appearance to the rest of the forest, so that there is no need for other boundary marks, except where they adjoin cultivated estates, where pillars or boards are necessary, a case having lately been reported of an encroachment from a coffee estate by a troublesome neighbour.

7. A portion of the inner demarcation of Ghat Forest Reserve was re-cleared, and a few bits of the frontier boundary, where thefts are liable to occur. A preliminary settlement of a disputed boundary between Coorg and Malabar in the Kiggatnad Taluk was made by the Sub-Collector of Malabar and the Deputy Conservator of Forests, Coorg.

It awaits a final settlement by a Settlement officer. The disputed tract being the scene of considerable thefts of timber for several years back by certain Moplas, an order to stop all felling until the boundary is settled has been lately asked for.

8. Complaints of inclusion of private land into the ghat forest still come in, but they are less numerous. As stated in para 3 of last year's report, it was proposed that a notice should be issued, allowing six months for the preferment of all such complaints. It is still thought that this would be advisable, but the Revenue Department has not as yet taken the initiative. Some disputed bits still await settlement by the Revenue Department, notably the Bakadu in Pulikote village. In these places the boundary of the Reserve still remains unsettled.

9. The forests on the slopes of the Kotebetta range, a large mass of hills jutting in from the ghats lying to the north of Mercara and between that place and Somavarpet, have been partially examined with a view to reserving them if sufficiently important. A line has been commenced round them, but the available forest is of no great importance except to protect the slopes of the hill.

CHAPTER II.

SURVEYS, WORKING PLANS AND ANNUAL PLANS OF OPERATIONS.

10. *Surveys.*—The survey of the inner line of the ghat forests is being carried on on contract at the rate of Rs. 10 per mile and a bonus of Rs. 400 if finished next season. Unfortunately Mr. Morrell has found great difficulty in getting the necessary aid from the ryots, for which reason the work has not progressed so expeditiously as was hoped. He surveyed 72½ miles from the 20th December till the end of April when, owing to heavy rains, the forests became unhealthy.

11. The work done by Native Surveyors in former years turned out unsatisfactory, and much of it was returned by the Madras Survey Office to be done over again. As their work cost Rs. 10 a mile, it is thought that by employing a European the work will be done on the whole cheaper.

12. The survey of bánes (land attached to wargas) has, it is understood, been commenced, but it is much to be desired that it should be pushed on more vigorously, so that opportunities for encroaching on Government unattached forest land, which have been unfortunately so common in Coorg, may be put a stop to. But with the small establishment of Surveyors at present in Coorg, very little can be done.

13. No working plans have as yet been prepared for any of the forests in Coorg. It will soon become necessary to make them for the southern forests if a tramway is run through them as has lately been proposed.

14. Complete annual plans of operations have not as yet been introduced. It would certainly be advisable to adopt them. Up till now the custom has been to put down the works to be done from time to time in Inspection Notes, but this is not so good a method as the other which settles the work for the year.

CHAPTER III.

PROTECTION AND IMPROVEMENT.

15. *Establishments.*—The Forest Establishment is proving itself inadequate to the increasing work in the forests. Work has quadrupled during the last five years, whereas the establishment has remained the same or nearly so. A proposal to slightly increase it was unfavorably received owing to the short time which has elapsed since it was increased. A statement showing the last sanctioned scale is annexed with the acreage under the charge of, and duties performed by, each official.

16. *Statement.*—Statement showing the last sanctioned scale with the acreage under the charge of, and duties performed by, each official :—

In whose charge.	Names of Forests.	Area in Acres.	Remarks.
Yelsavirshime Forester ...	Ganagur Kattepura, Alur and Sandab Koti.	7,245	Forest and plantation work.
Head Guard	Yedavanad and Gadinad ...	5,614	Do felling & do work.
Anekadu Forester	Anekadu and Attur ...	11,507	Do do
Guard	Jainkal Forest	1,273	Do do
Dubare Forester	Dubare Forest	11,365	Do do
Maldare do	Devamachi	7,569	Do do
Tittimatti do	Mavukal and North Arkere ...	20,468	Do do
Hatgatnad do	Hatgatnad and South Arkere ...	32,520	Do do
Nalkeri do	Nalkeri	25,742	Do do
	Total.....	123,303	

17. It will seen from the above statement that the Yedavanad Reserve is in charge of a Head Guard ; this has come about owing to operations having been commenced quite of late years in that forest, and the arrangement is a make shift. Again, it is found that the charges in South Coorg are far too large for one man ; this is especially felt in fire conservancy.

(2.) GENERAL PROTECTION AND BREACHES OF THE FOREST LAW.

18. Very little thieving has occurred during the year ; what has occurred has been of a petty nature. The inhabitants of Coorg are indeed so liberally treated in the matter of timber, that it would be surprising if much theft did occur. Another case against Moplas for stealing timber prior to two years ago in a remote corner of the ghat forests was unsuccessfully prosecuted. These old cases are difficult to prove, but as there was a strong *primâ facie* case against them, it was better to prosecute the parties as it will certainly prove a great deterrent in future. Without strong measures of this sort it would be impossible to insure the safety of the forests below ghat, which are almost inaccessible in the monsoon except to the hardy Moplas in the neighbourhood who commit the depredations and appear to think they have a right to commit them, very like the smugglers of olden days in England. It would be different if the Division included the district between the ghats and the sea. Arrangements could then be made to control the rivers down which the timber is floated; this the Malabar authorities do not think themselves called upon to do, having no Government forests in the District to protect. As it is, the timber is felled and dragged to the rivers at a time when it is almost impossible for any body in Coorg to know anything about it, and as soon as it is in the river it is very difficult to prove that it comes from the Coorg forests and not from the neighbouring forests belonging to Malabar natives. The three large prosecutions which have been undertaken, although only one was successful, have had the effect of stopping all further depredations which with due watchfulness will probably be lasting.

19. A good many cases of damage done to sandalwood have been reported, but they proved to be mostly accidental and were settled by the persons concerned voluntarily paying the assessed damages. One case of wilful mischief was taken into court and the perpetrator fined Rs. 100. Another case in which the individual refuses to pay the damages, he is being sued in a Civil Court.

20. The following is a statement of the breaches of the forest law which were prosecuted:—

FORM No. 52, FOREST DEPARTMENT COORG.

Prosecutions for breaches of Forest Rules during the year 1882—83.

Forest Division and Civil District.	Cases pending from 1881—82.	New cases of the year.					Total cases.	Disposed of during the year.						Cases pending at the close of the year.	Remarks.
		Injury to Forest by Fire.	Unauthorized felling or appropriation of wood and minor forest produce.	Grazing without permission on tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions		Acquittals.		Total.			
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.		
North Coorg.	...	...	2	2	2	6	6	6	31	...	...	6	31	...	
South Coorg.	...	1	1	...	4	6	6	4	14	1	1	5	15	1	
Kipalli ...	...	...	1	...	...	1	1	...	...	...	...	...	...	1	
Total...	...	1	4	2	6	13	13	10	45	1	1	11	46	2	

(3). FOREST FIRES.

21. Owing to the very heavy monsoon, during which about 80 *per cent more rain fell than the average*, the forests remained green till the end of February, then heavy early showers which fell in the early part of March arrested the drying of the forests and forced out the fresh foliage and herbage, the growth of which was stimulated by showers from time to time. In consequence of this combination of favorable circumstances, the forests, with the exception of the very dry eastern zone in Hatgatnad and Nalkeri and hills covered with bamboo, were never in a state to burn and only three petty fires occurred in the Reserved forests.

22. Efforts to keep out fire were however redoubled. The dry eastern zone in the southern forests was traversed by an extra line 200 yards broad and extra guards were appointed, for it could not be predicted that the showers would come so early. The expenditure is thus 1,029 rupees more than last year.

23. In a way the result is unsatisfactory, because a year's experience has been lost. It may be said that this season was as favorable to fire conservancy as the last was unfavorable to it.

(4). GRAZING AND FENCING.

24. With the object of preventing illicit grazing by neighbouring Mysore ryots and others, who are fond of trespassing into the Coorg forests near the frontier, the grazing of some of the forests was sold by auction. But owing to a complaint made by the ryots of one Taluk that the lessee levied fees from them, the Chief Commissioner ordered that no fees were to be levied; the grazing has therefore not been let out again. The advantage of the measure was apparent in the decrease of cattle trespass.

25. In some of the forests very few Coorg ryots' cattle are grazed and it has been represented that in these the measure might be continued.

26. The grazing in a part of the Anekadu Reserve has been leased for a term of 5 years to a gentleman who has an estate in the vicinity. He does not graze many of his own cattle in it, but herds any of the ryots cattle who are willing to have them herded. By this means he hopes to obtain a good supply of manure.

27. Some parts of Anekadu, especially in the north-east, are too much grazed over, and the lanthana, so obnoxious in other places, is serving a good turn here by making the forest less accessible to cattle and diminishing the area over which grass grows. It also makes the soil loose by the action of its roots and gives shelter for young tree plants to come up.

28. The amount obtained for grazing was small, as follows :—

	Rs.	As.	P.
Yelsavirshime Forests	25	0	0
Nalkeri	80	0	0
Yedavanad	67	0	0
Arkeri	12	0	0
Anekadu	65	0	0
Hatgatnad	10	0	0
Grass from Morcara Plantation	4	2	4
Total....	263	2	4

29. The list of cattle for which grazing is claimed by ryots in each forest is shown in the accompanying statement.

30. Statement showing the number of cattle grazing in each forest :—

No.	Name of Forest.	Name of Village.	Number of Cattle.	Total in each Forest.
1	ANEKADU STATE FOREST.	Chethalli	92	
		Kallur	193	
		Valnur	150	
		Hulugunda	232	
		Doddattur	226	
		Chikkattur	187	
		Basvanattur	125	
		Mangalore	482	
		Kudlur	350	
		Gummanakolli	360	
		Mullusoge	512	
		Baichanhalli	312	
		Madapatna	360	
		Bollur	303	
		Guddehosur	232	
		Basvanhalli	153	
		Doddabettakeri	102	
		Chikkabettakeri	183	
		Rangasamudra	150	
		Virupakshi	60	
		Hosapatna	320	
		Nanjarajpatna	250	
		Gondibasavanahalli	150	
		Hosakote	250	
		Fraserpet	300	
				6,034
2	DUBARE STATE FOREST.	Nelliya Hudkeri	300	
		Armeri Nalkeri and Maitodi	450	
		Bellumadu and Kunjalageri	500	
				1,250
3	DEVAMACHI. ...	Kardigode, Siddapur, Kodagu, Srirangapatna and Maldare	850	
		Valagunda	400	
		Chembebelliyur and Podakakote ..	500	
		Iymangala and Maggala	600	
		Devanigeri	400	
		Kuklur	400	
		Ghnuya	500	
		Aimmatti	300	
		Puliyeri	350	
		Kavadi	200	
		Karmad	250	
		Kumbare	200	
		Nalavatoklu	300	
		Bilgunda	350	
		Hosakote	300	
		Rallutodu Baigodu	300	
		Hosur	500	

No.	Name of Forest.	Name of Village.	Number of Cattle.	Total in each Forest.
		Bettakeri	300	
		Kallumadu	350	
		Channaiyanakote	2,000	
		Bairambada	200	
		Kannangala	500	
		Bellumadu Kadanur and Kottolli ...	600	
				10,450
4	HATGATNAD ...	Ballyamundur	320	
		Tuchamakeri	280	
		Nadikeri	250	
		Mugtugeri	270	
		Kattageri	350	
		Kanur	185	
		Nidugumba	93	
		Nittur	179	
				1,927
5	ARKERI.	Bellur	412	
		Balele	310	
		Devanur	169	
		Nokkya	200	
		Siddapur	100	
		Danungala	325	
		Badragola	150	
		Mayimudi	150	
				1,816
6	NALKERI. ...	Chikkamuddur	290	
		Kotur	440	
		Nemmale	273	
		Nalkeri	296	
		Chattageri	382	
		Kumtur	311	
		Kurchi	354	
		Srimangala	159	
		Kutta	137	
		Badaga	332	
		Manchalli	255	
		Teralu	139	
		Biraga	107	
		Harihara	308	
				3,783
7	YEDAVANAD. ...	Hebbale	1,800	These villages belonging to a different hobli, the claim is contested.
		Hulse	250	
		Marur	150	
		Rampura	311	
		Buvangeri	161	
		Kudibe	250	
		Byadagotta	150	
		Shiraholalu	170	
		Heggadalli	68	
		Mallenalli	95	
		Sigehossur	95	
		Channaiyarahalli	20	
		Hudugur	60	
		Ramasvamikanive...	240	
		Garagandur ... — ...	1,000	Number set down by far too many, these villages having large forests attached.
		Kumbur	1,500	
		Bettaganalli	1,000	
		Harangi	1,500	
		Yedavare	1,000	
		Igur	1,000	
		Horavale	1,100	
				11,920

No.	Name of Forest.	Name of Village.	Number of Cattle.	Total in each Forest.
8	GANAGUR. ...	Shirangala	1,380	
		Torenur	920	
		Nallur	441	
		Manajur	182	
		Chikkanayakanahosahalli	87	
		Gaddehosahalli	591	
		Kasargode	68	
		Andanipura	96	
		Chikkaluvara	45	
		Doddaluvara	234	
		Hosakote	100	
		Halekote	274	
		Arsinakuppe	50	
		Alalakuppe	50	
		Basaruguppe	50	
		Sidlingapur	10	
		Harohalli	163	
		Nirugalale	156	
		Doddattur	129	
		Areyur	258	
		Hosahalli	181	
		Nerale	81	
		Valagunda	51	
		Yelakanur	128	
		Hathlumakki	73	
		Somavarpet	390	
		Nidta	206	
		Hithlukeri	156	
		Nandigunda	82	
		Uunsekayihosahalli	58	
		Ramenalli	125	
		Jagenalli	83	
		Kurudvalli	73	
		Mallur	432	
		Malambri	121	
		Basavanalli	103	
		Kargode	54	
		Hosahalli	131	
		Hosagutti	113	
		Gaudalli	307	
		Huggala	68	
		Santiveri	67	
		Chikkara	28	
		Kugur	222	
		Gondalli	34	
		Molate	160	
		Hirikara	114	
		Ganagur	302	
		Sangaiyanapura	137	
		Hedunde	68	
		Gonimarur	104	
		Konagalu	150	
		Chikkanagalu	80	
		Kantebasavanalli	50	
		Banavara	80	
		Siddapura	50	
		Allur	120	
		Binanangala	70	
				10,085
9	MENSADABETTA ...	Shidigalele	184	
		Mensa	176	
		Ankanahalli	177	
		Kaisarvalli	157	
		Bittadalli	42	
		Kyatenalli	157	
		Gangavara	142	1,055

No.	Name of Forest.	Name of Village.	Number of Cattle.	Total in each Forest.
10	KATTEPURA FOREST ...	Chikkabandara	203	
		Besur	198	
				401
11	GHAT FOREST ...	Betoli	450	
		Arzi	550	
		Heggula	350	
		Balugodu	150	
		Kedamallur	450	
		Kadangamarur	400	
		Porada	420	
		Badagerakere	460	
		Birunani	430	3,660
		Total Number of Cattle... ..	...	52,361

(5) NATURAL RE-PRODUCTION.

30 A. Of teak is very capricious. Its laws are very imperfectly understood and for the present no decided rules can be laid down. As a matter of fact in the Coorg forests the re-production of teak is extremely irregular. It is in some places fairly good, but in others very scanty. The experiments made with a view to aiding natural re-production have not as yet proved successful. This year a seeding coupe is being made in Nalkeri in which nearly all the teak is left, and only bad caste trees cut out.

For the present however there is no necessity for making regular fellings, selection fellings of mature trees giving much more than the limited means of removal allows of being sent to depôt. With extended means of transport it would be soon necessary to fix the quantity to be brought out.

(6) ARTIFICIAL RE-PRODUCTION.

31. The monsoon was too heavy for a good planting year. Two nurseries suffered severely from over flooding of the river, though situated considerably above ordinary highwater level. This was at Kutampole and Fraserpet. In other places the water having dried up in tanks and wells, owing to the unusually long dry weather, the nurseries had insufficient water; this happened at Maldare and Tittimatti. For these reasons the nurseries cannot be said to have been a success on the whole.

32. This caused an insufficiency of plants to plant up the areas which had been cleared. For instance at Kutampole 50 acres had been cleared. 35 acres was planted in June before the high floods came down and swept over the nursery; after that there were neither plants to plant up the remaining 15 acres, nor to supply vacancies (such as always occur in teak planting) in the part already planted. At Fraserpet the disaster was worse, inasmuch as very little planting had been done before the nursery was flooded.

33. The planted portion of the Kutampole clearing is however a great success, and the plants have made an average growth of 4 feet, many being over 6′ high and not a few 8′. The expenditure on this plantation is high, but this year a contract has been given at Rs. 50 per acre + 25 per cent commission, and 60 acres have been newly cleared which, with the 15 acres of last year's clearing, will be planted in the coming monsoon.

34. The old plantation at Kutampole has been cleared out, and the teak poles, disengaged from the creepers and jungle which were stifling them, are now going ahead.

35. No extension was made to the Karmad teak plantation; weeding the lines, cutting of creepers and girdling the jungle trees in the plantation was carried on. Owing to the wide planting (10′ × 10′), the plants do not yet cover the ground sufficiently to keep down weeds, so that much money must still be spent on weeding. The plantation will however be a success; many poles can be found 60′ high and 2′ 8″ in girth. The great drawback it has to contend with is the enormous growth of weeds, the grass growing 8′ high in a year if left to itself.

SANDAL RE-PRODUCTION.

36. The heavy rain rotted a good deal of the sandal seed put down, but from what came up the areas are partially stocked, and will be easily supplied up in the coming year. The total area treated was 56½ acres. Of this 40 acres may be said to be fully stocked, which with the areas already planted makes a total of 154 acres.

37. In the coupes lines 21 feet broad were cleared and planted with two rows of teak, but the weed growth is so great that the plants take a long time to make a start and this plan does not promise well.

38. Nurseries have been much better made and kept this season under the incentive of the offer of rewards for the best nursery and planting combined, and an aggregate of 150 acres has been cleared for planting teak and 115 for sandal.

The expenditure on the up-keep of old work has been Rs. 4,600; on new work Rs. 3,208; on clearings and nurseries for the coming year Rs. 5,660.

(7.) CUTTINGS OF CREEPERS, &c.

39. Creepers were cut in a small bit of the Amale block in Nalkeri forest.

The usefulness of this work has not as yet fully dawned on the mind of the Native Forester, nor that of freeing out young teak, and he puts them off till to-morrow if he has something he thinks more important to do to-day.

(8.) EXPERIMENTS AND EXOTICS.

40. Of a few ceara seed put down at Kutampole 3 came up in October and are growing at an amazing pace; one is about 14′ high and flowered in March, another is about 11′ high.

Two thousand seeds have been purchased and are now being germinated.

41. Some cocoa seed was got up to Kutampole but unfortunately got bad on the road, and only about 10 per cent of it germinated. These were thriving when they were last inspected in the beginning of May. If they do well, it would be worth while to plant a few acres as a further experiment.

42. The *Grevillea robusta* or silky oak is found to be most successful in withstanding the bleak monsoon winds on the Mercara hills. In a two acre patch planted up last year there is hardly a failure. It will be considerably extended in the coming monsoon.

43. A few cinchona put down in the Mercara fuel plantation are doing fairly well, but 20 per cent went out after the early showers. There are about 6,000 in the nursery ready for planting. A couple of years ago it was generally thought that cinchona would do on used upsoil, but experience has shown that this is not the case. Some cinchona officinalis (*condeminea*) was put down at the end of the monsoon. The seed was apparently not very good; as only about 2,000 plants have been raised from it. These will be ready to plant out towards the end of the coming monsoon.

A lb. of fresh seed (*condeminea*), put down in April, came up very well, and will produce a large number of plants by which it will be proved whether this kind will succeed in Mercara.

44. Four packets of ledger seed were received last month from the Sikkim gardens, and put in the seed beds about a fortnight ago. A small packet of robusta was put down at the same time.

45. A lb. of wattle was put down in February and has produced a large number of plants, which will be planted out shortly. It is expected that they will combat successfully with the lanthana and give a good return as firewood. Some put down in the nursery 3 years ago have made considerable growth and are throwing up roots suckers plentifully. For this reason they are to be rooted out of the nursery for fear of their spreading all over it.

46. Four plants of Java fig and 4 plants of (*Kigelia pinnata*) a tree which carries its fruit on long ropes hanging from the branches, which were brought from Bangalore 2 years ago and planted in the Mercara nursery, are thriving. A number of cuttings were propagated from the Java figs.

The 12 ficus elastica plants, brought from Bangalore and sent to different stations at the same time, all died from what cause is not well understood. It is regretted now that some were not kept at Mercara to be better watched.

Twenty-four Landolphia florida plants were purchased from Messrs. Hinde and Co., Tellicherry, and sent to Kutampole. But whether the heat of the journey was too much for them, or the treatment they subsequently received was not such as they required, is not clear, they all languished and died one after another. It is possible that if received at a more favorable time of year this creeper would succeed in that locality.

(9) COMMUNICATIONS AND BUILDINGS.

47. A new road was traced from Aremanebane by Karmad plantation to Nagarahole, about 10 miles, to facilitate inspection. It is open for dry weather traffic. About three miles at the Nalkeri and one mile at the Aramanebane have been formed. The cost of this road has been Rs. 346, and an expenditure of Rs. 800 will be necessary to finish it. The cost of an embankment over the Nittur paddy fields, which this road crosses for ¾ mile, was Rs. 170. This is a continuation of the Tittimatti-Armanebane road, which is much used by the ryots, and ought properly to be kept up from Local Funds. The Commissioner has been addressed with a view to this being done. It is not used by the Forest Department for carting timber but only as an inspection, and it is always out of repair on account of the ryots' carts passing over.

48. All the forest stations in the eastern forests are now connected by cart roads so that inspection is much facilitated. The expenditure on roads was as follows :—

	Rs.	As.	P.
Nalkeri-Karmad	346	1	4
Do Forests	95	8	8
Tittimati Maldare	139	8	0
Maldare-Dubare	74	8	0
Tittimatti Armanebane	13	2	8
Karmad Plantation	54	12	0
Arkeri Forest	5	6	8
Hutgat Forest	88	14	8
Anekadu Forest	2	4	0
Dubare Fraserpet	19	0	8
	839	2	0

49. A new lodge was sanctioned for Kargode in the Malambi forest, three miles from Gangavara, which will facilitate the inspection of the forests and plantations in North Coorg. The work was commenced during the year and is being pushed forward.

50. The expenditure on the up-keep of old huts was as follows:—

No.	Names.	Amount.		
1	Nagarahole	61	13	4
2	Kutampole	34	12	4
3	Armanebane	31	4	0
4	Karmad	14	9	8
5	Tittimatti	7	6	0
6	Hutgat	17	13	4
7	Maldare...	20	0	0
8	Dubare	64	4	8
9	Hirikere	11	2	8
10	Sandalkoti (at Fraserpet)	6	0	0
11	Fraserpet Bullock Shed	55	7	6
12	Ramaswamikanave	3	4	0
13	Yerekolli	10	12	0
14	Yedavanad	15	9	4
15	Mercara Bullock Shed	27	8	0
16	Kargode (new work)	117	3	11
	Total.....	498	14	9

CHAPTER IV.

YIELD AND WORKING.

51. Departmental operations have been somewhat extended during the year as regards timber. The number of logs felled during the year was 2,530 logs, giving 46,601 cubic feet, and the number taken to Depôt was 1,897 logs, 33,960 cubic feet. It was hoped to get a good deal more than this to Depôt, but the cart contractor at Hunsur failed to bring in as much as he promised. It is feared that it will not be possible to work the southern forests up to their capability so long as the transport is by country carts.

52. The quantity of each kind of timber brought out is shown in Form No. 60.

The following is a summary for each forest:—

Name of Forest.	Wood.	Quantity.	
		No.	Cubic Feet.
Nalkeri Forest	Logs	509	12,396
Maldare	Do	109	2,172
	Bamboos	12,000	0
Mavatur	Logs	87	1,355

Name of Forest.	Wood.	Quantity. No.	Quantity. Cubic Feet.
Hutgatnad	Logs	145	3,370
Baddragola	Do	15	372
Mavukal	Do	129	2,532
	Other wood poles	171	0
Balumane	Logs	3	77
	Other wood poles	60	0
Arkere	Logs	65	1,755
Yedavnad	Do	109	2,262
	Otherwood poles	4	0
	Bomboos	2,725	0
Dubare	Logs	419	2,258
	Bamboos	250	0
Kibbinbetta	Logs	60	860
Anekadu	Do	191	3,260
	Other wood poles	22	0
	Teak poles	18	0
	Bamboos	13,859	0
Attur	Logs	66	1,291
	Firewood	1,326½	0
	Total.....	21,832½	33,960

53. The timber is principally the result of selection fellings. No means have yet been taken to extract the large teak trees in Hutgatnad and Nalkeri, except that some of the more manageable sized trees have been logged up. An estimate has however lately been submitted for laying a tramway from Hunsur into Nalkeri. This although more costly than saw mills will be ten times more effective, for even with the saw mills there would be the want of carriage difficulty, which would keep the saw mills from being profitable; whereas with the tramway it is estimated, putting figures very low, that it would earn 10 per cent on its cost. That instead of bringing 800 logs to depôt, 4,000 could be brought in with the greatest ease, and the revenue of the Hunsur Depôt would be increased five fold with a much smaller proportionate expenditure. Although the estimate has been submitted since the close of the year under report, it has been sometime under consideration, and is therefore mentioned here, and a copy of the proposal will be found in the Appendix to this Report.

54. The cost of felling, logging and carting to depôt was on the average annas 4 and pies 3 per cubic foot. The average selling price was Rs. 0—10—1 per cubic foot. Adding quota for establishment the cost of working out the timber comes to Rs. 50 per cent of its value in depôt. With improved means of carriage and more extended operations, this percentage would be considerably smaller. It is by these means that the forest revenues in Coorg can be considerably increased, and there is no doubt that the southern forests can give a much larger yield than has been got from them up till now. To begin with, were a tramway laid, nothing need be taken

out for the first 4 years but ancient trees which attained their maturity 50, 100 and more years ago, and besides these there are large quantities of inferior timbers which with cheap carriage would pay to bring out to depôt, so that for a long time it would not be necessary to touch the normal yield. These old trees may be likened to the accumulated interest of a minor's property, but with a somewhat dishonest trustee in old Time who is constantly making away with some of it. It is high time the trust was taken from him.

55. The following statement shows the work done by, and the cost of, the Government bullocks. Three bullocks died during the year owing to their being brought to Mercara with loads in the first burst of the monsoon; 1 died from natural causes in the forest; and 1 was killed by a tiger; total 5 casualties.

Statement showing the Work done by Government Bullocks during the year 1882-83.

Description of Wood.	Work done during the year 1882—83. Quantity. No.	C. ft.	Amount.			Items.	Feed and Cost.		
Carting logs in North Coorg ...	208	3,467	974	15	0	Gram	256	12	7
" poles ...	32	...	15	8	0	Grass	345	10	1
" bamboos ...	6,559	...	106	5	9	Shoeing	45	14	0
" logs in South Coorg ...	77	1,221	114	7	6	Sundries	27	1	3
" do in Fraserpet ...	23	306	41	13	0	Repair of carts	52	9	0
" Sundries ...	...	...	157	0	0	Pay of Drivers	378	4	2
" to one place in a forest ...	108	1,915	119	11	0				
" to Averti Depôt ...	11	72	2	4	0				
Total.....	7,018	6,981	1,532	0	3		1,106	3	1

56. The following statement shows the work done by the elephant and its cost. The elephant died in August from madness, and it is not intended to replace him for the present.

Statement showing the Work done by Government Elephant during 1882-83.

Description of Wood.	Work done during the year 1882—83. Quantity. No.	C. ft.	Amount.			Items.	Feed and Cost. Amount.		
Dragging logs in South Coorg...	82	1,440	97	13	0	Rice	57	12	0
						Salt	2	3	0
						Oil	7	5	3
	Realized by sale of the elephant tusks, Rs.		230	0	0	Sundries	12	3	2
						Pay of Mahcot... ...	117	0	6
						Damages paid	30	0	0
	82	1,440	327	13	0		226	7	11

57. The number of bamboos removed by Government agency was 28,334 as compared with 39,776 last year.

It is found more profitable to sell them in the forest.

58. The quantity of firewood taken to the Arrack Distillery at Fraserpet was 1,587½ bandy-loads as compared with 1,387¾ bandy-loads last year.

59. The quantity of sandalwood brought in was 117½ tons as compared with 126¾ last year. The number of trees producing this amount was 1,528, which, give an average of 13 trees to the ton.

The enumeration of sandal trees in the Province has been finished and gives a total of 140,794 trees as compared with 212,357 trees in 1874, to which must be added about 77,000 young trees growing in plantations taking the average of 500 trees per acre.

(2) REMOVAL OF PRODUCE BY PURCHASERS FROM RESERVED FORESTS.

60. The following summary shows the quantity of produce removed from the State forests :—

	Logs.	C. ft.
Honne	15	483
Other wood poles	559	0
Bamboos	49,950	0
	50,524	483

61. It is not likely that the yield under this head will increase. As a rule it is more profitable to sell in depôts except as regards bamboos. Efforts have been made to increase the sale of these in the forests, as in many parts they are so thick as to exclude tree growth and an increased consumption is to be desired.

As regards timber it is difficult to get its money's worth in the forests, because there is no competition, nor will purchasers submit to be responsible for their servants employed in the forests, and as a matter of fact people allowed to fell and remove produce from the forests, generally attempt to get more than they have a right to, a most difficult thing to prevent altogether.

An instance may be given which occurred lately ;—the tops of some trees felled in a clearing for a plantation, the trunks of which had been logged and sent to depôt, were sold to a man. In going over the clearing whilst this person was removing his purchase, a number of young matti poles were seen, and on enquiry proved to have been cut by the purchaser of the tops, who, when taxed with it, stated they were part of his purchase. Luckily his written agreement on stamped paper was at hand and promptly produced, and his wood as promptly attached until he paid for the poles and 25 per cent over the usual price.

If such things are done in an open clearing, what will be done in the thick jungle where detection is ever so much more difficult?

62. The amount of timber removed from Unreserved forests on payment was :—

	Rs.	As.	P.
1 Teak tree	20	0	0
22 Honne	132	0	0
19 Junglewood	84	8	0
3,000 Bamboos	60	0	0
	296	8	0

63. The quantity of timber sold on lands given for coffee cultivation was :—

		Rs.	As.	P.
Bité	56	280	0	0
Honne	18	108	0	0
Poon	3	60	0	0
Other trees	527	2,230	8	0
	604	2,678	8	0

(3) FREE GRANTS OF FOREST PRODUCE.

64. Grants of timber were made from the Reserved forests. The following statement gives the total quantity granted :—

Logs ..	5	Poles . ..	904	Bamboos ..	8,237

65. The following shows the grants of produce from Village and Unreserved forests:—

Honne trees ...	71	Bamboos ..	5,157
Hebbalasu ..	18	Junglewood poles ..	82
Bitri ..	3	Do cart-loads ..	28
Junglewood ..	134		

(4) SUMMARY OF PRODUCE REMOVED FROM FORESTS.

66.

	Particulars.	Quantity. No.	Quantity. C. ft.	Remarks.
	To Sale Depôts.			
	Teak	974	15,972	
	Honne	626	12,531	
	Other wood	297	5,457	
	Teak poles	18	..	
	Other wood poles	257	...	
	Firewood	1,326½	...	
	Bamboos	28,334		
	Sold locally.			
	Honne	15	483	
	Other wood	559	...	
	Bamboos	49,950	...	
II *a*	Trees	57	...	
	Teak poles	8	...	
	Otherwood poles...	523	...	
	Branches of trees felled	...	...	
II *b*	Firewood, cart-loads	53	...	
II *c*	Bamboos	36,526	...	
II *d*	Grazing and fodder grass, Rs. 263			Quantity not known, as the right of collecting and removing was sold by contract.
II *e*	Other minor produce			
	Honey, bees wax, saffron, resins Rs. 1,206			
	Alalekayi (Myrobalan) " 545			
	Tamarind ... " 87			
	Sigeikayi (Soap nut) " 390			
	Antaaladakayi ... " 40			
	Hulichiluhudi ... " 10			
	Chillies ... ... " 8			
	Cardamoms ... ... " 20,765			
	Total.....	119,523	34,443	

(5) IMPORTS AND EXPORTS OF FOREST PRODUCE.

67. No forest produce was imported. The quantity exported was as follows:—

	Logs.	Cubic feet.
Teak	1,304	22,831
Honne	371	7,492
Other wood	438	7,981
Teak poles	817	...
Other wood poles	13	...
Bamboos	71,819	...
Sandalwood	192½	Tons.
	74,954½	38,304

CHAPTER V.

FINANCIAL RESULTS.

68. The following statement shows the results of 1882—83 compared with the results of the two previous years:—

	1880—81.	1881—82.	1882—83.
Receipts	87,857	1,00,364	1,38,022
Expenditure	56,487	59,858	64,783
Surplus	31,370	40,506	73,239
Percentage of Expenditure to Receipts	6 4 2	59·6	46·9

69. The following statement shows the receipts and expenditure of the year under the three main budget headings—

Budget Heads.	Receipts.	Charges.
I Timber, &c. removed by Government agency	1,06,222	24,186
II Other revenue	31,800	6,623
III Formation, protection, &c. of Forests	...	33,974
Total.....	1,38,022	64,783

70. The revenue was derived from the following sources:—

I *a.*	1,305	logs=22,854 cubic feet teak	17,186	15	0				
	480	„ =9,587 cubic feet honne	8,283	15	8				
	470	„ =8,430 cubic feet other wood							
	13	Teak poles	6	6	0				
	821	Other wood poles	743	9	9				
I *b.*	1,587½	Firewood cart-loads	1,289	0	6				
I *c.*	80,422	Bamboos	1,037	4	6				
I *d.*	192½	Sandalwood (tons)	77,407	7	2				
I *e.*		Grass and other minor produce	235	4	11	1,06,189	15	6	
II *a.*	22	Honne							
	5	Other wood							
	38	Teak poles	927	0	0				
	523	Other wood poles							
II *b.*	53	Firewood	12	10	0				
II *c.*	36,526	Bamboos	590	6	0				
II *d.*		Grazing and fodder grass	263	2	4				
II *e.*		Other minor produce	1,214	10	2				
		Cardamoms	22,043	15	1	25,051	11	7	
V *a.*		Fines and forfeitures	4	8	0				
V *b.*		Refunds	46	4	0				
V *c.*		Other sources	7,339	14	0	7,390	10	0	
		Total Rs.....		...	...	1,38,632	5	1	

71. The following statement shows the receipts under head *Ia* timber, compared with the receipts for the previous 4 years, from which it will be seen that receipts under this head are increasing annually and assuming satisfactory proportions. But it is still a very small revenue to get from 123,000 acres of forest, and with improved modes of carriage and convertion it can easily be very largely increased without exceeding the yield:—

1878—79.	1879—80.	1880—81.	1881—82.	1882—83.
4,276	9,133	14,334	19,745	26,221

72. The value of timber, live and stock, &c., at the commencement and close of the year was as follows:—

FORM No. 65.—FOREST DEPARTMENT, COORG.

Abstract showing the Value of Timber and Other Produce at Sale Depôts for the year 1882—83.

Description of timber and other produce.	On hand at the commencement of the year.			On hand at close of the year.			Difference.		Remarks.
	No.	C. ft.	Value.	No.	C. ft.	Value.	In favor of the year.	Against the year.	
Teak ...	1,072	16,530	13,936	775	10,199	10,075			
Honne ...	280	5,021	5,752	451	8,574	4,510			
Other wood ..	439	7,077		214	3,227	1,712			
Teak poles ...	20	...	20	16	...	16			
Other wood poles.	428	...	428	440	...	440			
Firewood ...	610	...	610	349	...	174			
Fire-sticks ...	252	...	16	252	...	...			
Bamboos ...	10,752	...	215	8,614	...	160			
Total.....	13,853	28,428	20,977	11,111	22,000	17,087			
Sandalwood.									
Good wood ...	111¼	Tons.	44,600	45¼	Tons.	18,100			
Inferior wood ..	32	...	1,024	23½	...	752			
Total.....	143¼	Tons.	45,624	68¾	Tons.	18,852			
Grand Total.....	13,996¼	28,428	66,601	11,179¾	22,000	35,939		30,662	

FORM No. 65.—FOREST DEPARTMENT, COORG.

Abstract showing the Value of Live and Dead Stock for the year 1882—83.

Description.	On hand at the commencement of the year.		On hand at the close of the year.		Difference.		Remarks.
	No.	Value.	No.	Value.	In favor of the year.	Against the year.	
Live Stock.							
Elephant ...	1	500	...	...	...	...	
Bullocks ...	20	800	15	600	...	...	
	21	1,300	15	600	...	700	
Dead Stock.							
Prismatic compass ...	2	200	2	200	...	...	
Ghat Tracer ...	...	...	1	30	...	...	
Lifting jacks ...	2	96	2	96	...	...	
Buildings ...	7	7,000	9	9,600	...	...	Includes Tittimatti old Travellers' Bungalow made over to the department, value estimated at Rs. 2,500.
Sheds ...	14	140	18	180	...	...	
Tools ...	1,396	1,396	1,642	1,642	...	...	
Carts ...	10	450	10	400	...	...	
Almirahs ...	4	120	5	150	...	...	
Boxes ...	19	76	29	116	...	...	
Tables ...	9	45	9	45	...	...	
Chairs ...	7	7	7	7	...	...	
Letter scales ...	8	36	3	36	...	...	
Sandalwood scale with weights.	1	150	1	150	...	...	
Clock ...	...	...	1	14	...	...	
Tents ...	2	500	2	500	...	...	
Rowtees ...	3	240	3	240	...	...	
Miscellaneous ...	150	150	150	150	...	...	
	1,629	10,606	1,894	13,556	2,950	...	
Grand Total.....	1,650	11,906	1,909	14,156	2,250	...	

CHAPTER VI.

UNRESERVED FORESTS.

73. The Báné Rules are still under abeyance, but the orders to stop further division of báné lands seem to have been effectual. The want of definite rules is however much felt, and it is important that arrangements should be made to complete the demarcation of bánés, so that remaining land may be made available for coffee cultivation.

74. The ryots do not like the idea of the Forest Department working their village forests for them, thinking that they will be restricted in their demands. It has been proposed to divide the uruduves in Yelusavirashime and Yeduvanad into bánés, and give a bit to each warga or holding, the jungle lands in these districts being conveniently situated for such division. By this means it is hoped to ensure the better protection of the village forests.

With regard to village forests in Nanjarajapatna and Ramaswami Kanave, hoblis no satisfactory decision has yet been come to. It may be impossible to arrange some plan of rotation cuttings.

75. *Sandalwood.*—It has been already stated in para 59 that by the new enumeration of sandal trees, the number is found to be 140,794 compared with 212,357 by the census of 1874. The difference is probably due to faulty enumeration in 1874 and to destruction of trees on coffee estates. By the new enumeration there are 44,611 fit to be cut in the next 20 years or 2,230 per annum. This year 1,528 have been extracted, which is well within the mark. A careful record is now kept of the number brought to depôt, so that the possibility will be checked from year to year. For the present it may be put down at 120 tons a year, not including chips which form 10 to 12 per cent of the prepared wood.

76. The contractor worked fairly well, but was fined for bringing in a larger quantity of green than dry wood, his excuse being that dry wood is getting very rare. This is true to a certain extent, and is in a way satisfactory, as by allowing wood to deteriorate before cutting, *i. e.* working below the possibility, income is lost.

CHAPTER VII.

GENERAL REMARKS.

77. The Forest establishment has on the whole worked well, but has not been so much tried as the previous year, when it proved so lamentably deficient in the matter of fire conservancy. After its revision it is hoped it will be more efficient. K. Kuttappa, the Forester, appointed in 1881-82, is a promising officer.

78. The office work has gone on satisfactorily, but there is still a want of punctuality. One cause of this is that the office hands are not sufficiently numerous to allow of a Clerk and a Munshi following the Deputy Conservator into camp, so that much time is lost in sending correspondence backwards and forwards by post, but still much is due to want of diligence on the part of the office hands.

F. B. DICKINSON,
Deputy Conservator of Forests,
Coorg Division.

APPENDIX I.

R.-F. No. 252—19.

COORG DEPUTY CONSERVATOR'S OFFICE,
Dated 22nd May 1883.

From

The Deputy Conservator of Forests,
Coorg.

To

The Secretary to the Chief Commissioner of Coorg,
Bangalore.

SIR,

I have the honor to report that I have lately been going into the question of obtaining more efficient carriage of timber from the Nalkeri and Hatgatnad Reserved forests in this Division. In the eastern and centre zones of these Reserves there is a large number of large teak trees which it is impossible to get out with carts owing to their great bulk. I estimate the number of these trees at least 15,000 and that they would yield on the average 100 cubic feet a piece. If they could be brought to depôt, they would sell at the rate at the very least of 8 annas per cubic foot, or a total money value of Rs. 7,50,000.

2. My first idea was to establish saw mills at Nagarholé or on the Lakshmantirth, and with this object in view I visited the saw mills at Yellapur in North Canara in December 1881. I found however that there the largest log brought to the mills did not measure more than about 50 cubic feet, so that this did not solve the question of how to move the large logs which I wish to treat. I saw at once that saw mills would be of little use to me unless I had the means of bringing the logs to the mills. A movable tramway on the "Decanville" principle, which is made in lengths, the rails attached to steel sleepers, would effect this. There would, however, be a considerable expenditure to keep up the saw mills, and it is very doubtful to me if enough work could be done to make them pay. The Yellapur mills do not, I believe, make such a handsome profit as they were expected to give. I should still have the expensive cart hire from the mills in Hunsur, *i. e.*, 4 annas per cubic foot, and could at the best bring in but a limited quantity.

3. To save this large cart hire, and to obviate the necessity of having saw mills, we have the alternative of running a tramway from Hunsur into the forest. Before putting down the cost of the tramway, I will show what I think could be done with it, always putting my figures very low. My motive power would be bullocks with an establishment of 20 pairs. I calculate I could bring in 6 trains of 2,000 cubic feet each a month for 10 months (indeed there seems no reason why the tramway should not be worked all the year round). This gives a total 120,000 cubic feet. The carriage by country carts would amount to Rs. 30,000 and would represent 4,000 loads at least, an impossible number to bring in by carts this year. I have had great difficulty in getting even 800 loads brought to depôt. Now putting the up-keep of the bullocks and the tramway at Rs. 7,800 per annum + Rs. 7,200 for establishment, there remains a profit of Rs. 15,000 per annum to the tramway.

4. I now come to the cost of a fixed tramway of 25 miles + 2 miles of the "Decanville Portene" line which would be convenient to shift from place to place in the forest as required to feed the main line.

The total cost will be—	Rs.
To 25 miles of fixed line, delivered at Mysore	1,07,500
,, 2 miles of Decanville system, delivered at Mysore.. ..	16,000
,, 20 timber wagons at Rs. 300	6,000
,, carriage from Mysore to the forests and laying down ..	10,000
,, purchase 20 pairs of bullocks at Rs. 150 .. .	3,000
	1,42,500

It will thus be seen that the tramway will easily give a profit of 10 per cent on the outlay, while at the same time enabling us to bring a large quantity of timber into the market which is at present useless, not to speak of the large amount of honne, matti and other timber which we shall be able to extract and sell at a profit.

5. I beg to enclose estimates based on data furnished me by Mr. W. South, who is well acquainted with such matters. I would suggest that the scheme be submitted to a professional officer for opinion. At the same time I trust it may be possible to come to a decision at an early date, as the demand for timber is now so good that the sooner we can arrange to bring this timber out, the better.

6. As regards the necessary funds I would suggest that the Government of India be solicited to grant a special loan, the interest at 4 per cent, which might be debited to the Coorg Forest Department.

I have, &c.,

F. B. DICKINSON,

Deputy Conservator of Forests, Coorg.

P. S.—I should likewise require a "Gladstone" saw to enable me to get down these large trees, the available felling labor being inadequate for the large work in contemplation. This would add about Rs. 1,000 to the estimate, making a total of Rs. 1,43,500.

F. B. D.

STATEMENT A.

Estimate for 25 miles 21 lbs. Section Rails 20" Gauge Light Forest Line. Delivered at Mysore Railway Station.

Tons per Mile.	Materials. Exchanged 1—7⅝ (S. D.).	Cost in Madras.			Landing and loading, Madras.			Railway freight, Pettah.			Pettah transhipping charge.			Freight, Mysore State Railway.			Charge in Mysore.			Total per Ton.			For one Mile.			
32	Rails at 169 shillings	103	5	4	1	12	0	11	6	6	0	2	0	2	11	0	0	2	0	119	6	10	3,821	10	8	
1	Fish Plates, 181 shillings	110	10	9	1	12	0	11	6	6	0	2	0	2	11	0	0	2	0	126	12	3	126	12	3	
0·37	Fish Bolts and Nuts, 373 shillings ...	228	1	2	1	12	0	11	6	6	0	2	0	2	11	0	0	2	0	244	2	8	90	5	6	
1·15	Spikes at 341 shillings	208	8	1	1	12	0	11	6	6	0	2	0	2	11	0	0	2	0	224	9	7	258	4	7	
																							4,297	1	0	Miles or

4,300 × 25 = Rs.	1,07,500	0	0
20 Timber Wagons with 20 Spare Sockets at Rs. 300—0—0 ...	6,000	0	0
Carriage to Forests from Mysore, say approximately	8,058	12	0
Total Rs—	1,21,558	12	0

NOTE.—Above is charged at 1—7⅝ (S. D.) exchange.

F. B. DICKINSON,
Dy. Conservator of Forests, Coorg.

STATEMENT B.

Estimate for 20 miles of Decanvilli's Narrow Gauge Railway for a Forest Line in Mysore.

Main Line Sidings.			
25 Miles long × 5,280 feet	132,000 lineal feet.		
One at each end and one at each intermediate 2nd mile ...			
Total 12 Sidings × 88 feet long...	1,056		
Total length...	133,056		
106,480 lineal feet steel rails and cross sleepers rivetted together in solid frames each 5 metres long (about 16 feet) rails 14 lbs. per yard. Gauge, 20 inches with rivetted fish plates ready for laying ...	150,157	0	0
No. 12 right handed crossing frames with movable butt points complete	1,386	0	0
No. 12 ditto left handed	1,386	0	0
Note.—No. 20 crossing frames only are required for 11 sidings, but 24 are estimated for in case additional sidings need to be put in hereafter.			
No. 20 extra price for solid cast iron fixed points, like tramway points, made so as invariably to turn off by the left hand at	418	0	0
Note.—In this case each crossing frame would turn off one curve to the right and another curve to the left, see fig. 4, page 6			
Note.—The above price of 105 for crossing frames is for small curves of 26 feet radius. If as is preferable the curves are made 60 feet radius, the rate per crossing frame should be increased 1,200 lineal extra rate short straight prices 10 feet long used in picing up between curves, &c.	118	0	0
600 ditto do 4 feet long	118	0	0
400 ditto extra rate for curved frames 10 feet long with a radius of 26 feet to 33 feet ...	158	0	0
200 ditto do 4 feet long ...	99	0	0
(Notes.—Curves of this radius are rather sharp for a long line and should be laid as seldom as possible) ...			
1,200 ditto do 10 feet long for a radius of 50 to 80 feet (recommended)	297	0	0
600 ditto 4 feet long	207	0	0
1,500 ditto for full length frames 16 feet long, 160 feet radius for easy bend in road ...	222	0	0
No. 60 Passe-partorte, *i. e.*, junction pieces fish plated male and female sections for jointing up at curves, &c.	198	0	0
No. 10 Straightening up lever bars for straightening up rails	66	0	0
400 lineal feet extra rate per double guard rails at cross roads	528	0	0
No. 1 Derailens a frame for running wagons on or off the rails on to the road at any place required ...	26	0	0

STATEMENT B.—*Concluded.*

No. 2 Turntable large size 30″ diameter, made of a double flat plate turning upon centre pivot ...	158	0	0			
Extra for turntable in cast iron box fitted with centre pivot & supported upon conical rollers strong enough to turn easy with heavy weights in the wagons ...				1,55,542	0	0
No. 20 Solid iron wagons made for carrying timber, logs of any length and up to 2-2″ diameter with centre buffer as per type						
No. 60 See illustration p. 81 metre of 3′-3″ long with chilled cast iron wheels and steel axles, the bent for holding the logs having a centre pivot for working easy round curves and turntables	2,574	0	0			
No. 20 Extra for iron sockets at the 4 curves of each wagon with woodside rocks arranged for carrying small fagot wood if required	110	0	0	2,684	0	0
If required extra for each wagon for breaks, gripping the four wheels						
Note.—If the country is hilly, 5 of the wagons should be fitted with breaks						
				1,58,226	0	0
Spare Sundries.						
20 Wheels at	80	0	0			
5 Steel axles	17	0	0			
5 Oil stuffing boxes, complete	15	0	0			
25 Brass brushes for axles	21	0	0			
50 Oil sockets	15	0	0			
50 Cottons for oil boxes	5	8	0			
50 Sponges for lubricators	24	0	0			
Sundry bolts of sizes for wagons	1	0	0			
2,500 Spare steel fish plates	687	0	0			
12,500 „ bolts do	1,003	0	0			
1½ cwt rivets for do	59	0	0	1,927	8	0
6 Tool boxes complete each with oil tin and lubricating oil...	...	...	...	198	0	0
				1,60,251	8	0
Total estimate cost freight insurance in Madras Harbour Rs.	...	...	...	1,63,570	0	0
Add carriage to Mysore from Madras	...	...	...	20,000	0	0
Total.....	...	...	..	1,83,570	0	0

F. B. DICKINSON,
Deputy Conservator of Forests, Coorg.

APPENDIX II.

Revenue-Forests, No. 34—33.

COORG SUB-ASSISTANT CONSERVATOR'S OFFICE,
Dated 11*th June* 1883.

From

The Sub-Assistant Conservator of Forests,
Coorg.

To

The Deputy Conservator of Forests,
Coorg.

SIR,

I have the honor to submit a brief report of the work done during the year 1882—83.

1. *Plantation work.*—After the close of the working season of 1882 I was chiefly employed during the months of June, July and August in looking after the plantation work in South Coorg and North Coorg. This consisted in supervising the work of the Foresters and instructing them in the method of planting. The planting was done at the proper season, but the plantations on the whole were not very successful owing to the unprecedentedly heavy rains.

2. *Demarcation work.*—During the year under report 12 miles, 2 furlongs and 55 yards of demarcation line was made along the Kotebetta range, the average breadth of the line being ten feet. Three hundred and eighty stout posts were fixed along this whole length, and also three hundred and seventy pits (of $3' \times 1\frac{1}{2}' \times 1\frac{1}{2}$) were made. The total cost of this work, including the pay of the Mutsaddi employed in the work, is Rs. 93—1—0, which gives an average of Rs. 7—12—0 per mile. Excluding the pay of the Mutsaddi, the cost is only Rs. 35—1—0, which gives much lower average per mile than in previous years.

Seventy-four miles, six furlongs and 167 yards of old demarcation line was cleared and made ready during the year for surveying. The cost of this work amounted to Rs. 124-15-0, which gives an average of Rs. 1—10—10 per mile, which I believe is satisfactory considering the difficulties of obtaining labor in the outlying villages.

3. *Sandal weighing.*—During the two months of February and March I was solely employed in weighing out sandalwood to merchants who purchased it in the auction sale, and in looking after the fire protective operations in North Coorg.

4. *Inspection of dispute lands and lands applied for cultivation.*—Ten disputed lands along the ghat forest demarcation line were examined and reported on during the year; and 17 applications for cultivation were examined. Great inconvenience is felt in examining disputed lands along the boundary and in altering the line. This would be avoided if the presence of owners of lands be made compulsory at the time the line is being made; and if they are made known that any disputes along the boundary should be reported within three months of the completion of the line; after which period no notice should be taken of such complaints. I have repeatedly brought this to your notice, but as yet nothing has been done in the matter.

I have, &c.,

M. MUTTANNA,
Sub-Assistant Conservator of Forests, Coorg.

Form No. 49.
FOREST DEPARTMENT, COORG.
Area of Reserved Forests, 1882—83.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st April 1882. Acres.	Area on 1st April 1882. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other Heads. Acres.	Area on 31st March 1883. Acres.	Area on 31st March 1883. Equivalent in square miles.	No. and date of Notification of additions or transfer.	
Coorg.	North Coorg ...	Kattepura	585	1	...	...	585	1		
		Sandakoti	276	...	...	...	276	...		
		Allur	395	1	...	...	395	1		
		Ganagur	5,989	9	...	...	5,989	9		
		Yedavanad	7,839	12	...	*952	6,887	11		* This alteration was made in 1874, soon after the original demarcation, and it was not known that the survey had been made along the original demarcation line. The error was discovered during the year and a new survey made.
		Anekadu	11,507	18	...	...	11,507	18		
		Dubare	11,365	18	...	...	11,365	18		
	South Coorg ...	Devamachi	7,569	12	...	...	7,569	12		
		Mavukal	8,188	13	...	...	8,188	13		
		Arkermad	17,280	27	...	...	17,280	27		
		Hatgatnad	27,520	43	...	...	27,520	43		
		Nalkeri	25,742	40	...	...	25,742	40		
	Ghat Forests ...	Urti and Kerti.	19,200	30	...	...	19,200	30		Estimated.
		Chambu and Quyinad ...	6,400	10	...	...	6,400	10		Do
		Total.....	149,855	234	...	952	1,48,903	233		

Area of Plantations, 1882—83.

Division.	Names of Plantations.	On 1st April 1882. Area. Acres.	On 1st April 1882. Cost. Rupees.	Added during 1882—83. Area. Acres.	Added during 1882—83. Cost. Rupees.	On 31st March 1883. Total Area. Acres.	On 31st March 1883. Total Cost. Rupees.	Remarks.
	Regular Plantations.							
	Karnad Teak ...	189	21,741 14 6	...	138 12 0	189	21,880 10 6	5 Acres newly cleared at Irumani.
	Kutampole " ...	80	7,949 12 0	35	4,812 11 2	85	12,762 7 2	Besides this 15 acres cleared but not planted, also 60 acres newly cleared.
	Karepura " ...	4	1,950 0 0	10	... .	14	1,950 0 0	Found to be considerably larger than was reported.
	Meravara Fuel ...	45	4,138 4 10	30	1,983 5 8	75	6,121 10 6	20 Acres newly cleared.
	Tittimatti Teak ...	5	... .	...	340 13 6	5	340 13 6	
	Anekadu "	...	... .	5	609 12 4	5	609 12 4	40 Do do
	Nalkeri (Ammale) "	...	... ...	5	487 13 4	5	487 13 4	25 Do do
	Gangavara Sandal ...	32	5,245 10 8	25	830 13 4	57	6,076 8 0	69 Acres of new land was cleared, but is only half stocked.
	Fraserpet Holageri " ...	3	740 6 10	2	31 4 8	5	771 11 6	2 Acres newly cleared.
	Do Gandadagundi " ...	9	114 15 4	6	189 7 6	15	304 6 10	
	Herikere " ...	13	1,522 7 2	...	528 11 9	13	2,051 2 11	30 Do do
	Hudugur	1	140 0 0	...	... ...	1	140 0 0	Abandoned owing to its remote situation.
	Nalkeri	8	1,007 7 2	4	342 3 0	12	1,349 10 2	
	Tittimatti	7½	579 8 4	4½	229 6 4	12	808 14 8	8 Acres newly cleared.
	Dubare	5	164 1 8	...	163 6 0	5	327 7 8	5 Acres partly stocked.
	Dubare Chillikere	4	316 5 0	2	168 15 0	6	485 4 0	3 Do do
	Kargodu Yelsavirshima	3½	229 13 4	2½	125 12 0	6	355 9 4	4 Acres newly cleared.
	Benavara	...	... ...	8	145 15 0	8	145 15 0	New.
	Maldaro Sandal ...	6	428 6 2	2	491 13 8	8	920 3 10	8 Acres newly cleared.
	Karmal	15	719 5 7	...	238 10 8	15	958 0 3	2 Acres partly stocked.
	Hurlikal and Kudlur Bakka Attur.	7½	116 0 4	...	531 10 6	7½	647 10 10	50 Acres newly cleared.
	Anekadu Balugodu	¼	522 10 10	...	... ...	¼	522 10 10	Abandoned since 1881.
	Total.....	407¼	47,627 1 9	141½	† 12,391 5 5	549	60,018 7 2	† Of this Rs. 5,660 was spent for land cleared for next year's planting.
	Cultural Operations.							
	Fraserpet Nursery, Sandal & Teak.	...	... ...	...	63 8 2	...	63 8 2	
	Hamagodu Coupe	¼	17 0 8	4½	110 2 0	5	127 2 8	
	Nalkeri	5	500 2 0	...	... .	5	500 2 0	
	Anekadu Coupe ...	10	325 11 6	...	... ...	10	325 11 6	
	Murkal Hatgatnad Coupe ...	...	55 1 4	...	322 0 0	...	377 1 4	
	Hatgat Iramani Coupe, (formerly Karmad)..	10	81 10 8	5	186 1 4	15	267 12 0	
	Mavattur Coupe	...	75 7 4	...	43 1 6	..	118 8 10	
	Maldare Coupe, South Dubare ...	4½	33 4 0	...	229 5 0	4½	262 9 0	
	Attur Sunnakal Marti ...	...	... ...	...	122 13 4	...	122 13 4	
		29¼	1,088 5 6	9¾	1,076 15 4	39½	2,165 5 10	
	Grand Total.....	437¼	48,715 7 3	151½	13,468 4 9	588½	62,183 13 0	
				Abstract.				
	Regular Plantations. 6 Teak plantations ...	248	31,641 10 6	55	6,389 14 4	303	38,031 8 10	
	1 Fuel do	45	4,138 4 10	30	1,983 5 8	75	6,121 10 6	
	15 Sandal do	114½	11,847 2 5	56½	4,018 1 5	171	15,865 3 10	
		407¼	47,627 1 9	141½	12,391 5 5	549	60,018 7 2	
	Cultural operations, 9 Coupes.	29¼	1,088 5 6	9¾	1,076 15 4	39½	2,165 5 10	
		29¼	1,088 5 6	9¾	1,076 15 4	39½	2,165 5 10	
	Grand Total.....	437¼	48,715 7 3	151½	13,468 4 9	588½	62,183 13 0	

Form No. 51.

FOREST DEPARTMENT, COORG.

Area of Forest Tracts protected from Fire during the dry season of 1882, *to accompany Report for* 1882—83.

Division.	Forest Tracts.	Up to 31st May 1882.		During the dry season of 1882.				Total Cost up to end of May 1883.	Year in which protection commenced.	Remarks.
		Area actually protected.	Total Cost.	Area attempted to be protected.	Failures.	Actually protected.	Amount expended.			
Coorg.	Dubare	4,874	2,073	11,365	3	11,362	168	2,241	1877	
	Anekadu	10,674	2,947	11,507	7	11,500	115	3,062	1876	
	Devamach'	3,310	1,623	7,569	...	7,569	285	1,908	1878	
	Karmad	...	177	229	...	229	103	280	1877	
	Yedavanad	7,656	1,258	7,839	6	7,833	148	1,406	1878	
	Ganagur	5,678	648	5,989	...	5,989	104	752	1878	
	Nalkeri	5,556	2,064	25,742	...	25,742	733	2,797	1878	
	Mavukal	5,918	1,540	8,188	...	8,188	199	1,739	1878	
	Gangavara Sandal Reserve ...	50	72	69	...	69	40	112	1877	
	Arkere	604	166	17,280	...	17,280	153	319	1878	
	Hatgat	2,236	2,429	27,520	...	27,520	374	2,803	1878	
	Kutumpole Teak ...	...	83	...	..	...	...	83	1881	
	Fraserpet Sandal ...	...	19	18	...	18	24	43	1881	
	Total.....	46,556	15,090	123,315	16	123,299	2,446	17,545	...	

Charged in previous year	14,524
Do in 1882—83	2,544
Do up to 31st May 1883 ...	477
Total.....	17,545

Form No. 52.

Prosecutions for breaches of Forest Rules during the year 1882—83.

Forest Division and Civil District.	Cases pending from 1881—82.	New Cases of the year.					Total cases.	Disposed of during the year.						Cases pending at the close of the year.
		Injury to Forest by fire.	Unauthorized felling or appropriation of wood and minor Forest Produce.	Grazing without permission on tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
North Coorg ...	...	...	2	2	2	6	6	6	31	...	...	6	31	...
South Coorg ...	...	1	1	...	4	6	6	4	14	1	1	5	15	1
Kipalli ...	...	...	1	...	...	1	1	...	...	...	...	...	...	1
Total.....	...	1	4	2	6	13	13	10	45	1	1	11	46	2

Form No. 53.

Summary of Revenue for 1882—83.

Budget Heads Receipts.	Total.		
I.—Timber and other produce removed from the Forests by Government Agency:—			
a. Timber	26,244	10	6
b. Firewood and charcoal	1,289	0	6
c. Bamboos	1,045	12	6
d. Sandalwood	77,407	7	2
e. Grass and other minor produce	235	4	11
II.—Timber and other produce removed from the Forests by consumers or purchasers:—			
a. Timber	1,135	12	0
b. Firewood and charcoal	13	6	0
c. Bamboos	578	6	0
d. Grazing and fodder grass	263	2	4
e. Other minor produce	1,214	10	2
Cardamom...	21,768	10	1
III.—Confiscated drift and waif wood	...	...	...
IV.—Revenue from forests not managed by Government:—			
a. Duty on foreign timber and other forest produce	...	...	...
b. Revenue from shared and private forests	...	...	...
V.—Miscellaneous:—			
a. Fines and forfeitures	4	8	0
b. Refunds	46	4	0
c. Other sources	6,775	1	9
Total Receipts	1,38,021	15	11

Form, No. 53.

FOREST DEPARTMENT, COORG.

Summary of Expenditure, 1882—83.

Budget Heads.	Total.		
A.—Conservancy and Works.			
I.—Timber and other produce removed from the forests by Government agency :—			
a. Timber ...	6,762	6	8
b. Firewood and charcoal ...	662	10	0
c. Bamboos ...	234	8	5
d. Sandalwood ...	4,842	10	0
e. Grass and other minor produce ...	...	...	...
II.—Timber and other produce removed from the forest by consumers or purchasers ...	...	...	...
III.—Confiscated drift and waif-wood ...	...	...	..
IV.—Revenue from forests not managed by Government—			
a. Duty on foreign timber and other forest produce ...	...	...	...
b. Revenue from shared and private forests ...	...	...	...
V.—Rent of leased forests and payments to share-holders in forests managed by Government ...	..	...	...
VI.—Live Stock, Stores, Tools and Plant :—			
a. Purchase of cattle ...	...	...	...
b. Feed and keep of cattle ...	1,332	11	0
c. Stores, tools and plant ...	621	9	3
VII.—Communications and Buildings :—			
a. Roads and bridges ...	839	2	8
b. Buildings ...	498	14	9
c. Other works ...	...	...	...
VIII.—Demarcation, improvement and extension of forests :—			
a. Demarcation ...	1,317	15	6
b. Compensation for land and rights ...	235	0	0
c. Surveys and working plans ...	686	15	8
d. Plantations ...	13,468	4	9
e. Protection from fire ...	2,544	4	3
f. Other works ...	1	8	0
IX.—Miscellaneous :—			
a. Refunds ...	12	8	0
b. Law charges ...	1,128	8	1
c. Other charges ...	461	3	4
Total A, Conservancy and Works.....	35,648	7	4
B.—Establishments.			
I.—Salaries :—			
a. Conservators ...	...	...	...
b. Superior Officers ...	8,986	10	8
c. Subordinate Forest and Depôt Establishments ...	11,019	6	5
d. Office Establishments ...	3,012	0	5
e. Deputation and Special Allowances ...	...	..	...
II.—Travelling Allowances :—			
a. Conservators ...	...	...	...
b. Superior Officers ...	3,809	10	2
c. Subordinate Forest and Depôt Establishments ...	1,056	14	2
d. Office Establishments ...	3-8	4	9
III.—Contingencies :—			
a. Stationery ...	...	..	...
b. Carriage of Tents and Records ...	144	9	1
c. Rents, Rates and Taxes ...	240	0	0
d. Pay of Police Guards ...	...	.	...
e. Official Postage ...	247	5	6
f. Sundries ...	229	6	5
Total B., Establishments.....	29,134	3	7
Grand Total of Expenditure	64,782	10	11

G. J. VAN SOMEREN, MAJOR,
Assistant Comptroller General, Forests.

Form No. 54.

FOREST DEPARTMENT, COORG.

Account Current for the year 1882—83.

Dr. *Cr.*

To Cash Balance on 1st April 1882.	...	...	...	...	...	...	By Expenditure as per Annual Summary, Form No. 53	...	...	...	64,782	10	11
„ Revenue as per Details, Annual Summary, Form No. 53 ...	...	...	...	1,38,021	15	11	„ Forest Cash Remittances (Local).	...	...	...	...	...	...
„ Forest Cash Remittances (Local).	...	...	...	...	...	...	Remittance to State Treasury in Coorg	...	...	...	1,37,662	3	11
Remittance for State Treasury, Coorg	...	...	...	64,499	10	0	„ Advances Recoverable ...	...	...	...	27,988	5	11
„ Advance Recoverable ...	...	...	...	28,230	3	7	„ Inter Departmental Transfers ...	...	...	...	...	...	...
Account Current other Governments	...	...	...	...	...	...	„ Public Works Department, other Branches	...	...	...	359	12	...
Government of Madras ...	...	...	...	41	3	3	„ Cash Balance on 31st March 1883	...	...	...	...	...	...
		Total.....		2,30,793	0	9			Total.....		2,30,793	0	9

Form No. 55.

Outstandings and Liabilities on account of Contractors and Disbursers for 1882—83.

Division.	Department Debtor.									Department Creditor.									Balance Due.						Remarks.
	At commencement of year.			Recoveries in Cash and Value of supplies and work done during the year.			At close of year.			At commencement of year.			Payments made during year.			At close of year.			To Department (Outstandings).			By Department (Liabilities).			
Coorg... ...	...	...	...	28,230	3	7	28,230	3	7	241	1	8	27,988	5	11	28,229	7	7	...	...	...	0	12	0	
Total.....	...	...	...	28,230	3	7	28,230	3	7	241	1	8	27,988	5	11	28,229	7	7	...	...	...	0	12	0	

Form No. 56.

Revenue received and Outstandings on account of Revenue during 1882—83.

Division.	Particulars.	Outstandings at commencement of year.			Value of Sales and other Revenue during year.			Total.			Amount realized during year.			Balance due to the Department at end of year.			Remarks.
Coorg Forest Division.	Timber and other produce, &c.	6,452	2	1	1,40,662	6	7	1,47,114	8	8	*1,38,877	11	1	8,236	13	7	* Amount realized as per Annual Summary ...1,38,021 15 11 Amount written off as per Chief Commissioner's Orders of various dates. 855 11 2
	Total.....	6,452	2	1	1,40,662	6	7	1,47,114	8	8	1,38,877	11	1	8,236	13	7	Total Rs.....1,38,877 11 1

Form No. 57.

FOREST DEPARTMENT, COORG.

Financial Results of the year 1882—83.

Division.	Timber and other produce removed from Forests by Government agency.		Other Revenue.		Formation, protection and improvement of Forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.	Charges.	Receipts.	Charges.	
Coorg	1,06,222	24,186	31,800	6,623	33,974	1,38,022	64,783	
Total.....	1,06,222	24,186	31,800	6,623	33,974	1,38,022	64,783	

Form No 58.

Trees felled by Government Agency during the year 1882—83.

Division.	Trees felled.		Remarks.
	Description.	Number.	
Nalkeri Forest	Teak	148	
	Other wood	60	
		208	
Balumani	Honne	10	
	Other wood	20	
		30	
Hatgatnad Murkal	Teak	28	
	Honne	63	
	Other wood	32	
		123	
Tittimatti	Teak	91	
	Honne	79	
	Other wood	119	
		289	
Kesavankere	Teak	8	
	Honne	22	
		30	
Badragola	Teak	10	
	Honne	98	
	Other wood	3	
		111	
Arkeri	Teak	20	
	Honne	28	
	Other wood	3	
		51	
South Dubare	Honne	11	
		11	
Maldare	Teak	14	
	Honne	133	
	Other wood	8	
		515	
North Dubare	Teak	16	
	Other wood	80	
		96	
Anekadu	Teak	49	
	Honne	130	
	Other wood	11	
		190	
Yedavanad	Teak	12	
	Honne	27	
	Other woods	42	
		81	
Attur	Teak	98	
	Honne	53	
	Other wood	14	
		165	
Sillingapur	Honne	20	
	Other wood	46	
		66	
Kibbribetta	Honne	14	
	Other wood	60	
		74	
	Grand Total.....	1,680	
	Abstract.		
	Teak	494	
	Honne	688	
	Other wood	498	
	Total....	1,680	

Form No. 59.

FOREST DEPARTMENT, COORG.

Out-turn of Timber and other Produce cut and collected by Government Agency during the year 1882-83.

Division.	Produce cut and collected.				Remarks.
	How obtained.	Description.	Number or Quantity.	Cubic feet.	
Nalkeri		Teak	444	11,708	
		Other wood ...	59	2,403	
			603	14,110	
Balumane		Honne	14	239	
		Other wood ...	25	434	
		Bamboos	9,100	...	
			9,139	673	
Hatgat Murkal		Teak	34	678	
		Honne	99	2,407	
		Other wood ...	41	1,009	
		Other wood poles ...	220	...	
			394	4,094	
Tittimatti		Teak	107	1,899	
		Honne	87	1,539	
		Other wood ...	137	2,197	
		Other wood poles ...	203	...	
		Bamboos	5,650	...	
			6,184	5,635	
Kesavankere		Teak	8	107	
		Honne	25	481	
		Other wood poles ...	142	...	
			175	588	
Badragola		Honne	104	1,842	
		Teak	11	233	
		Other wood ..	5	96	
			120	2,171	
Arkeri		Teak	26	838	
		Honne	36	1,221	
		Other wood ...	3	116	
			65	2,175	
South Dubare		Honne	11	156	
		Other wood poles ...	66	...	
		Bamboos	15,800	...	
			15,877	156	
Maldare		Teak	14	338	
		Honne	152	3,704	
		Other wood ...	8	143	
		Teak poles... ...	308	...	
		Other wood poles ..	148	...	
		Bamboos	16,100	...	
			16,730	4,185	
Devamachi		Other wood poles ...	176	...	
		Bamboos	14,500	...	
			14,676	..	
North Dubare		Teak ...	280	1,110	
		Other wood ...	87	1,684	
		Bamboos	500	...	
			867	2,794	
Anekadu		Teak	49	639	
		Honne	136	2,238	
		Other wood ...	12	228	
		Teak poles —	53	...	
		Other wood ...	135	...	
		Bamboos	11,572	...	
			11,957	3,155	
Yedavanad		Teak	12	177	
		Honne	27	639	
		Other wood ..	48	953	
		Other wood poles ...	4	...	
		Bamboos	2,600	...	
			2,691	1,772	
Attur		Teak	103	865	
		Honne	59	1,262	
		Other wood ..	18	293	
		Firewood	1,324½	...	
			1,504½	2,420	
Sidlingapur		Honne	22	507	
		Other wood ...	46	638	
			68	1,145	
Kibbribetta		Honne	16	265	
		Other wood ...	67	1,263	
			83	1,528	
		Grand Total.....	81,133½	46,601	
	Abstract...	Teak	1,088	18,642	
		Honne	788	16,500	
		Other wood ...	654	11,459	
		Teak poles ...	361	...	
		Other wood poles ...	1,094	...	
		Firewood	1,324½	...	
		Bamboos	75,822	.	
		Total	81,133½	46,601	

Form No. 60.

FOREST DEPARTMENT, COORG.

Timber and other Produce received from Forests in Sale Depôts during the year 1882—83.

Division.	Depôt.	Produce received. Description.	Number or Quantity.	Cubic feet.	Remarks.
Coorg.	Hunsur	Teak	532	13,052	
		Honne	260	5,948	
		Other wood	110	2,127	
			902	21,127	
	Tittimatti	Teak	51	953	
		Honne	64	1,071	
		Other wood	30	811	
		Other wood poles	231	...	
			376	2,835	
	Fraserpet	Teak	371	1,647	
		Honne	107	2,275	
		Other wood	81	1,232	
		Teak poles	18	...	
		Other wood poles	8	...	
		Bamboos	9,875	...	
			10,460	5,154	
	Avarti	Teak	11	177	
		Honne..	29	446	
		Other wood	26	585	
			66	1,208	
	Mercara	Teak	9	143	
		Honne	166	2,791	
		Other wood	50	702	
		Other wood poles	18	...	
		Bamboos	959	...	
			1,202	3,636	
	Anekadu Bakka ...	Bamboos	5,500	...	
			5,500	...	
	Maldare	Bamboos	12,000	...	
			12,000	...	
	Firewood	Firewood	1,326½	...	
			1,326½	...	
		Grand Total.....	31,832½	33,960	
		Abstract.			
		Teak	974	15,972	
		Honne	626	12,531	
		Other wood	297	5,457	
		Teak poles	18	...	
		Other wood poles	257	...	
			2,172	33,960	
		Fire wood	1,326½	...	
			1,326½	...	
		Bamboos	28,334	...	
			28,334	...	
		Total.....	31,832½	33,960	

Form No. 60.—*Concluded.*

Division.	Depôt.	Produce received. Description.	Number or Quantity.	Cubic feet.	Remarks.
Coorg.	Fraserpet Sandalkoti. ...	Good wood	55½	Tons.	
		Inferior wood	62	...	
		Total.....	117½	Tons.	

Form No. 61.

FOREST DEPARTMENT, COORG.

Sales of Timber and other Produce cut and collected by Government Agency during the year 1882—83.

Division.	Depôt or Locality.	Produce sold. Description.	Number or Quantity.	Cubic feet.	Remarks.
Coorg.	Hunsur ...	Teak	756	17,670	
		Honne	207	4,491	
		Other wood	173	2,412	
			1,136	24,573	
	Tittimatti ...	Teak	45	855	
		Honne	52	865	
		Other wood	92	2,474	
		Other wood poles	197	...	
			386	4,194	
	Maldare ...	Bamboos	12,000	...	
			12,000	...	
	Fraserpet ...	Teak	407	8,548	
		Honne	96	1,891	
		Other wood	139	2,419	
		Teak poles	13	...	
		Other wood poles	33	...	
		Bamboos	9,337	...	
			10,025	7,858	
	Avarti Depôt ...	Teak	96	758	
		Honne	14	221	
		Other wood	16	384	
		Other wood poles	28	...	
		Bamboos	452	...	
			606	1,363	
	Mercara ...	Teak	1	23	
		Honne	94	1,612	
		Other wood	33	449	
		Other wood poles	4	...	
		Bamboos	5,253	...	
			5,385	2,084	
	Ramaswamikanave ...	Honne	2	24	
		Other wood	17	292	
		Bamboos	80	...	
			99	316	
	Anekadu Bakka ...	Bamboos	3,350	...	
			3,350	...	
	Firewood .	Firewood cart loads	1,587½	...	
			1,587½	...	
		Grand Total.....	34,574½	40,388	
		Locally Sold.			
	Tittimatti ...	Bamboos	4,900	...	
		Other wood poles	47	...	
	Mallipatna ...	Other wood poles	148	...	
	South Dubare ...	Bamboos	15,200	...	
		Other wood poles	66	...	
	Devamachi ...	Bamboos	14,500	...	
		Other wood poles	176	...	
	Murkal ...	Other wood poles	40	...	
	Maldare ...	Bamboos	5,150	...	
		Other wood poles	42	...	
		Honne	15	483	
	Balumani ...	Bamboos	9,100	...	
	Hatgatnad ...	Other wood poles	40	...	
	Anekadu ...	Bamboos	1,100	...	
		Total.....	50,524	483	
		Abstract.			
		Teak	1,305	22,854	
		Honne	465	9,104	
		Other wood	470	8,430	
		Teak poles	13	...	
		Other wood poles	262	...	
		Firewood cart loads	1,587½	...	
		Bamboos	30,472	...	
		Total.....	34,574½	40,388	
		Sold locally.			
		Honne	15	483	
		Other wood poles	559	...	
		Bamboos	49,950	...	
			50,524	483	

Form No. 61.

FOREST DEPARTMENT, COORG.

Sales of Timber and other Produce cut and collected by Government Agency during the year 1882-83.

Division.	Depôt or Locality.	Produce sold.			Remarks
		Description.	Number or Quantity.	C. ft.	
Coorg.	Fraserpet ...	Good wood	121½	Tons.	
	Sandalkoti ...	Inferior wood	70½		
		Total.....	192½	Tons.	

Form No. 62.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during 1882—83.

Particulars.	No. or Quantity.	Cubic ft.	Total of each Head. No. or Quantity.	Total of each Head. C. ft.	Particulars.	No. or Quantity.	Cubic ft.	Total of each Head. No. or Quantity.	Total of each Head. C. ft.
Balance at the commencement of the year—					Removed by purchasers from Sale Depôts—				
Teak...	1,082	16,330			Teak	1,305	22,854		
Honne	280	5,021			Honne	465	9,104		
Other wood	439	7,077			Other wood	470	8,430		
Teak poles	10	...			Teak poles	13	.		
Other wood poles... ...	428	...	2,239	28,428	Other wood poles ...	262	...	2,515	40,388
Firewood	610	..			Firewood	1,587½	...	1,587½	...
Fire-sticks	252	..	862		Bamboos	30,472	...	30,472	...
Bamboos	10,752	..	10,752		Total.....			34,574½	40,388
Total Balance.....			13,853	28,428	Sold locally—				
Received from the Forests to Sale Depôts—					Honne...	15	483		
Teak...	974	15,972			Other wood poles ...	559	..	574	483
Honne	626	12,531			Bamboos	49,950	...	49,950	...
Other wood	297	5,457			Total Removed.....			85,098½	40,871
Teak poles	18	. .			Balance at the close of the year—				
Other wood poles... ...	257	...	2,172	33,960	Teak	775	10,199		
Firewood	1,326½	...	1,326½		Honne	451	8,574		
Bamboos	28,334	..	28,334		Other wood...	214	3,227		
Received from the Forests and sold locally—					Teak poles	16	..		
Honne	15	483			Other wood poles ...	440	...	7,896	22,000
Other wood poles... ...	559	. .	574	483	Firewood	349	...		
Bamboos	49,950	...	49,950		Fire-sticks	252	. .	601	...
					Bamboos	8,614	...	8,614	...
Grand Total.....			96,209½	62,871	Grand Total.....			96,209½	62,871
					Sandal-wood.				
Balance remained at the commencement of the year—					Removed by purchasers—				
Good wood	111½	.			Good wood	121½	...		
Inferior wood	32	...	143½		Inferior wood	70½	.	192½	...
Received—					Dringe Remaining—				
Good wood	55½	...			Good wood	45½	...		
Inferior wood ...	62	...	117½		Inferior wood	23½	...	68½	...
Grand Total			261	Tons.	Grand Total.....			261	Tons.

Form No. 63.

FOREST DEPARTMENT, COORG.

Timber and other produce cut, collected and removed from the Forests by consumers or purchasers including pasture during the year 1882—83.

Division.	Produce removed. Description.	Number or Quantity.	Amount of Revenue.	Amount actually realized during the year.	Remarks.
	IIa.				
	Honne	22	132		
	Otherwood	35	157		
	Teak poles	8	5	927	
	Other wood poles...	523	462		
	Branches of trees felled	...	490		
		588	1,216	927	
	IIb.				
	Firewood	53	16	13	
		53	16	13	
	IIc.				
	Bamboos	36,526	655	590	
		36,526	655	590	
	IId.				
	Grazing and fodder grass	...	263	263	
		...	263	263	
	IIe. Other minor produce—				
	Honey beeswax, saffron, resin, Ralu	...	1,206		
	Alalekayi (Myrobalan)	...	545		
	Tamarind	...	87		
	Sigekayi	...	300	845	
	Antavaladakayi (Soap-nut)	...	40		
	Hullichalu Hudi	...	10		
	Chillies	...	8		
	Cardamom	...	20,765	19,821	
		...	22,961	20,666	
	Total Revenue under II.....	...	25,141	22,459	

Form No. 64.

Revenue derived from, and Expenditure incurred on, Timber and other produce sold to Public Works Department from Depôt during the year 1882—83.

Name of Department.	Particulars of supplies.	Amount supplied. No.	Amount supplied. C. ft.	Rate. At	Rate. Per	Amount of Revenue. Due.	Amount of Revenue. Received.	Amount of Revenue. Outstanding.	Cost to Forest Department. Timber expenses under A I	Cost to Forest Department. Quota of all other expenditure chargeable against Timber.	Cost to Forest Department. Total.	Comparison of Revenue Expenditure. Surplus.	Comparison of Revenue Expenditure. Deficit.	Remarks.
Public Works Department.	Teak ...	2	37	12 as	per cft.									
	Honne ...	1	25	10 as	"									
	Do ...	12	438	8 as	"	316	316	...	114	57	171	145	...	
	Do ...	4	60	6 as	"									
	Nandi ...	2	50	10 as	"									
	Total.....	21	610	....	...	316	316	...	114	57	171	145	...	
										Deduct Surplus (or Deficit).....		...	...	
										Balance for (or against the Department).....		...	...	

Form No. 65.

FOREST DEPARTMENT, COORG.

Abstract showing the Value of Timber and other produce at Sale Depôts for the year 1882—83.

Description of Timber and other Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference.		Remarks.
	No.	C. ft.	Value.	No.	C. ft.	Value.	In favor of the year.	Against the year.	
Teak	1,072	16,330	13,936	775	10,199	10,075			
Honne	280	5,021	5,752	451	8,574	4,510			
Other wood	439	7,077		214	3,227	1,712			
Teak poles	20	...	20	16	...	16			
Other wood poles	428	...	428	440	...	440			
Firewood	610	...	610	349	...	174			
Firesticks...	252	...	16	252	...	...			
Bamboos	10,752	...	215	8,614	...	160			
Total.....	13,853	28,428	20,977	11,111	22,000	17,087			
Sandalwood—									
Good wood	111¼	Tons.	44,600	45¼	Tons.	18,100			
Inferior wood	32	"	1,024	23½	"	752			
Total.....	143¼	"	45,624	68¾	"	18,852			
Grand Total.....	13,996¼	28,428	66,01	11,179¾	22,000	35,939	...	30,662	

F. B. DICKINSON,
Deputy Conservator of Forests, Coorg.

Mysore Government Press, Bangalore—26-10-83.—250.

No. 63 F., dated Calcutta, the 21st January 1885.

From—D. FITZPATRICK, Esq., Officiating Secretary to the Government of India, Home Department.

To—The Chief Commissioner of Coorg.

I am directed to acknowledge the receipt of your Secretary's letter No. 1161—159 of the 6th ultimo, forwarding the Progress Report on Forest Administration in Coorg for the year 1883-84, with the Commissioner's remarks and your orders on it.

Areas.

2. No change was made during the year in the area of reserved forests, which remains at 233 square miles. The demarcation and boundary survey of the Ghat forests, which have been in progress for a long time, are still incomplete; it is hoped that it will be practicable to bring them to a conclusion during the year 1884-85. If your remarks have been correctly understood, you are of opinion that all the old reserves, as well as contemplated additions, will require to be dealt with by a Forest Settlement Officer, to adjudicate claims to forest rights. Under these circumstances, it seems desirable to decide at an early date what shape the new law shall take, and I am to express a hope that the report promised in paragraph 2 of your Resolution on the Report will reach the Government of India at an early date.

Protection of the Forests.

3. Only 8 cases of forest offences were taken into Court; in 6 convictions were obtained, 1 case was dismissed, and 1 was pending at the close of the year. During the previous year 13 cases were taken into Court.

It was attempted to protect an area of 193 square miles against fire. Of these, 15 were burnt and 178 successfully protected, the failures representing 8 per cent. of the area attempted. The cost per square mile successfully protected came to Rs. 11, as compared with Rs. 13 during the preceding year. The season is described as unfavourable for fire protection, and the results are not so good as in 1882-83, when almost complete success was attained.

Sowing and Planting.

4. The results of sowing and planting are as follow:—

	Area, in acres.		
	At the commencement of the year.	Added or excluded.	At the close of the year.
Teak Plantations	303	126	429
Sandalwood Plantations	171	107	278
Fuel Plantations	75	10	85
Total ...	540	243	792
Other cultural operations	40	—2	38
Grand Total ...	589	241	830

Considerable additions were made to the teak and sandalwood plantations. Other cultural operations show a decrease of 2 acres, owing to the transfer of 35 acres to regular plantations, so that really 33 acres were added.

5. You state in your orders that you approve of the extension of the teak plantations, but that, looking to the artificial nature of the demand for sandalwood and the rapid changes in oriental habits and beliefs, you entertain some doubts as regards the advisability of investing much money on sandalwood plantations. In reply, I am to remark that the above considerations, resting as they must chiefly upon conjectures, scarcely afford sufficient ground for a complete change of system, and that it would appear to be the duty of Government at any rate to replace as much sandalwood as is annually removed from the forests. As far as natural reproduction does not effect this, it must be done by artificial plantations.

Yield of the Forests.

6. The data given in paragraph 14 of your orders on the Report show that the number of timber trees felled during the last 5 years has steadily risen from 840 in 1879-80 to 1,786 in the year under review, while the quantities sold in depôts have similarly increased from 11,296 cubic feet to 46,479 cubic feet. These figures show a steady increase, which is satisfactory It has not been possible to ascertain from the Report the total yield of the forests, and I am to suggest that this information may be given, as far as practicable, in future Reports.

7. The number of sandalwood trees cut during the year came to 1,421, and the quantity received at depôts to 74½ tons. The sales comprised only 36¼ tons. These data compare as follow with those of previous years :—

Year.	Quantity brought to Depôt.	Quantity sold.	Amount realized.	
			Total.	Per ton.
	Tons.	Tons.	Rs.	Rs.
1881-82	126¾	60¾	14,059	231
1882-83	117½	192¼	77,407	403
1883-84	74½	36¼	10,908	301

The falling off in the sales was due to a want of demand, the reasons of which are not accurately known.

Financial Results.

8. The financial results were as follow, compared with those of the previous year :—

Year.	Receipts.	Charges.	Surplus.
	Rs.	Rs.	Rs.
1883-84	87,822	75,023	12,799
1882-83	1,38,022	64,782	73,240
Increase in 1883-84	.....	10,241	.....
Decrease in 1883-84	50,200	.....	60,441

The decline in the Receipts is due to the reduction in the sandalwood sales, while the increase under Expenditure was caused by additional outlay under Plantations and Timber works.

9. In conclusion, I am to thank you for the interest taken by you in the management of the Coorg forests and for the full review accompanying the Report.

Appendix showing the discrepancies noticed in the Report of Forest Administration in Coorg for 1883-84.

FORM No. 50.

(Plantations.)

The figures relating to the area of Cultural Operations, under "Abstract," are shown thus :—

		Acres.
On 1st April 1883	...	5
Added during 1883-84	...	33
On 31st March 1884	...	38

They should, however, have been shown, more correctly, as follows :—

		Acres.	
On 1st April 1883	...	39½	(as in the Report for 1882-83).
Excluded during 1883-84	...	34½	(transferred to Regular Plantations).
		5	
Added during 1883-84	...	33	
On 31st March 1884	...	38	

FORM No. 52.

(Breaches of Forest Rules.)

In the Report for 1882-83, two cases were shown as pending at the close of that year; but in the Report for 1883-84, no cases are shown as pending from 1882-83.

FORM No. 63.

(Timber and other Produce cut, collected, and removed from the forests by Consumers or Purchasers.

The total amount actually realized during the year under Budget heads II. and III., as given in this Form—Rs. 28,212—does not agree (as it should) with the total of the figures under those heads in Form No. 53—Rs. 28,122.

A. R. M.—Home Department Press—No. 24—29-1-85—210.

Proceedings of the Chief Commissioner of Coorg,
(Revenue Forests), dated 24th September 1884.

READ—

Letter No. 320—176, dated the 16th August 1884, from the Commissioner of Coorg submitting with observations the Forest Administration Report of Coorg for 1883—84.

No. 842—C. 367, DATED CAMP MYSORE, 24TH SEPTEMBER 1884

ORDER THEREON.—The Deputy Conservator Mr. F. B. Dickinson has submitted the report in good time. He held charge of the Division for nine months. During his absence for 3 months on privilege leave, the Sub-Assistant Conservator Mr. Muttanna officiated for him. Colonel Hill, the Commissioner, takes much interest in the administration of the forests, and has carefully reviewed the report in his forwarding letter.

2. Mr. Dickinson's remarks in paras 2 and 3 of the report are sensible enough though hardly in place. They have been provoked by a recommendation, which the Commissioner, as he mentions in his forwarding letter, lately made, to the effect that the Deputy Conservator should be subordinated in forest matters to his orders. Mr. Lyall has always been in favor of the general policy of making the Forest officer an Assistant to the Collector or Commissioner, and in Coorg there are some special arguments in favor of such a course ; but as he is himself Conservator, as well as Chief Commissioner in Coorg, a most important part of the machinery of the arrangement as adopted in other provinces is not available. But though the Commissioner's plan does not at present seem adoptable, the point will be reconsidered in connection with the pending question of the introduction of a new forest law. The Chief Commissioner regrets the delay which has occurred in the settlement of this question ; it was considered in November last when he first visited Coorg, and he intends to report on it to the Government of India after making a second tour in the country in October. Pressure of other work, and uncertainty as to some of the rights and requirements of the people interested, have led to the postponement of a decision.

3. The survey of the Ghat forests was nearly completed in May, but it is said that some parts of the line will have to be revised. No additions were made during the year to the notified Government forests, which measured 233 square miles as in the previous year. The Commissioner seems to understand that the line of demarcation or reservation cannot be fixed till all the claims set up by ryots are disposed of by a Forest Settlement officer or other competent authority. This is not the case as rights can be admitted in a reserved forest without altering the line, and in the case of the Ghat forests, this will generally be the proper course to pursue where rights are established. A new law will have to be introduced before a Forest Settlement officer can be appointed, and his work will then extend throughout the District and not to these Ghat forests only.

4. The amount of work done in the clearance of boundary lines is satisfactory. Mr. Dickinson gives what seems to the Chief Commissioner a sufficient explanation of why he has not yet prepared working plans for individual forests and has only drawn out a general scheme of operations for the year. The necessity of eventually having working plans for each forest must however be kept in mind, and the Chief Commissioner expects Mr. Dickinson to draw up a working plan for at least one forest in the current year. However provisional the plan may have to be, it will embody Mr. Dickinson's experience, and will serve as some guide to any officer who may take his place.

5. It is satisfactory that breaches of forest law were not numerous. The fire protective arrangements may be held to have succeeded very well when the dryness of the season is considered. The cost of these arrangements during the year amounted to Rs. 2,029 giving Rs. 10—8—0 per square mile against Rs. 14 in the previous year. The decrease is satisfactory.

6. The system of leasing State forests for grazing was introduced to check the grazing of cattle not belonging to right-holders. But in the absence of a forest settlement it is difficult to decide what villages have rights, and the cattle that come from

Proceedings of the Chief Commissioner of Coorg, (Revenue-Forests),—dated 24th September 1884.

Mysore at certain seasons belong in small part only to the Mysore villages and more to the Mysore Government Amrut Mahal Cattle Farm, and to the Cattle Depôt of the Madras Government in the Military Department, which is attached to the Amrut Mahal Department. The cattle of this farm have always been allowed to graze in the forests on the eastern frontier of Coorg, and the exercise of the privilege may be regulated but can hardly be withdrawn. The officer in charge of the Amrut Mahal has been in communication with the Deputy Conservator on the subject, and when the mutual requirements of the two departments are clearly ascertained, a satisfactory arrangement is likely to be made. In the Chief Commissioner's opinion the natural forest growth in Coorg is so strong, that no material injury is likely to be caused by a moderate amount of grazing.

7. Mr. Dickinson mentions in para 25 of the report that the statements of cattle entitled to graze in the forests, which were noticed in the Government of India's Review of last year's report, are being revised by the Revenue authorities. The Chief Commissioner understands that in those statements all the cattle of villages in any way adjacent to the forests were entered. It has been the custom in Coorg for the cattle to roam at large through the forests demarcated, or undemarcated, at certain seasons: they are in fact turned loose, and do not return at night to the villages. The statement is therefore probably correct enough in accordance with the old custom, though it immensely exaggerates the number of cattle that have actually grazed from day to day in the forests. In the absence of any forest settlement even for the State or Gazetted forests, it is difficult to see how the statement could be otherwise prepared; but when a settlement is made, the more distant villages whose cattle have in comparison grazed rarely, and those villages which have ample grazing grounds outside the demarcated forests, will be adjudged to have no rights and the number of right-holders will then be immensely reduced. The loose custom of grazing at large over huge areas will in fact have to be abandoned.

8. It is mentioned in paragraph 24 of the report that the offer made to lease the Dubare forest for grazing, and for cutting grass, to put in silos was refused, as the offer was too low and there was danger of plants being cut with the grass. The Commissioner seems to refer to this in the observation he makes in para 10 of his letter where he says, that the "plan (of leasing forests for grazing) having failed will not be "repeated." The Deputy Conservator, to whom a reference was made on the subject, "explains as follows:—"The remark was not intended to convey the impression "that it was intended to abandon the system of leasing certain forests for grazing. "With the large number of cattle in Coorg it is not possible, I think, to refuse to sell "surplus grazing in some cases: in the neighbourhood of coffee estates, for instance, "where it is of importance to proprietors to have grazing for their cattle. Since re-"fusing the offer I have thought over the matter and think that it would be a good "thing for the country to encourage the making of silos and was intending to reopen "the question. The operations would have to be watched and precautions taken to "prevent damage being done to the forest."

9. It is satisfactory to observe that the area of plantations exhibited in Statement No. 50 shows an extension of 243 acres, making the total area planted 792 acres against 549 in the previous year. Of this increase, the teak and sandal plantations claim 126 and 107 acres respectively, and the fuel plantations 10 acres. There has also been a transfer to the head of regular plantations of 3 plots aggregating 19½ acres formerly shown under cultural operations. The teak nurseries are said to be fully supplied, and most of the sandal plantations appear to be doing well. In fact full advantage seems to have been taken of a very favorable season for plantation work. Mr. Dickinson's discovery that sandal grows best with lateral shade is important.

10. The large dimensions which the plantations are assuming will be seen from Form No. 50 attached to the report. The large increase this year was secured by an expenditure which was in excess of the budget grant under the head, by Rs. 7,893. Mr. Dickinson applied this money by transfer from other heads in anticipation of sanction. The Chief Commissioner objected to this procedure as irregular and

remarked that if consulted in time he might have declined to agree to so much being spent on plantations as he was not so sanguine in regard to their profitable character. Mr. Dickinson then addressed the Chief Commissioner in explanation of his views, and in support of his estimate of the profits to be anticipated from plantations. The Chief Commissioner replied to the following effect, that he had not come to any definite conclusion that sandalwood plantations would not pay, but felt no certainty on the point. Looking to the artificial nature of the demand which at present puts so high a price on the wood and the rapid changes in oriental habits and beliefs going on, he thought it very possible that the value might fall very greatly before the 40 years required to bring the trees to maturity; and moreover 40 years is a long time to wait. He wished also to see what the annual expenditure will be on the sandal plantations; after the first few years whether the trees can then be safely left alone, or whether the charge goes on, and to what extent. For these reasons, he approved Mr. Dickinson's intention of taking breath, and doing no more in the next few years than completing and caring for the existing sandal plantations. As to teak, he agreed as to the advisability of making plantations in places suitable where there is no natural growth, and of continuing experiments with a view to discover the best methods of encouraging natural growth and of planting the tree.

11. The return of rain gauges given in paragraph 47 shows the extraordinary rain-fall at Kutampole below the western ghats; where Mr. Tod is making plantations and carrying out experiments in exotics. It is to be hoped that the cocoa planting will succeed. It is not advisable to do more in the way of cinchona planting than the little Mr. Dickinson is doing: the coffee planters are carrying out the experiments on a far larger scale. They are also, as the Commissioner observes, doing very much in planting shade trees.

12. A sum of Rs. 1,254 was spent during the year on "Communications and Buildings". Rs. 548 were spent on roads and Rs. 706 on buildings, such as forest lodges and bungalows. The Superintending Engineer is requested to report on the proposal of Mr. Dickinson to transfer the road from Titimatti to Nittur to the Public Works Department as a Local Fund road.

13. The Tramway project, mentioned in para 52 of the report, was submitted for orders, and the Government of India have suggested as an alternative scheme the establishment of a saw mill and the purchase of about 2 miles of portable tramway to bring logs from the forests to the saw mills, the scantlings being carried thence to Hunsur by an establishment of Government bullocks or by contract. A copy of the order has been forwarded to the Deputy Conservator for report.

The proposal to level and survey the proposed tramway line and to construct on it an ordinary forest road has been sanctioned in Chief Commissioner's Proceedings No. 478—115, dated 1st July 1884.

14. It may be useful to compare the number of trees felled and the quantities of timber received in and sold from depôts during the past 5 years. The comparison is made in respect to trees felled in the following statement:—

Year.	Teak trees.	Other trees.	Total.
1879—80	205	635	840
1880—81	193	749	942
1881—82	808	741	1,549
1882—83	494	1,186	1,680
1883—84	817	969	1,786

It will be seen that the number felled in the year under report is large.

Proceedings of the Chief Commissioner of Coorg,
(Revenue Forests),—dated 24th September 1884.

The following is a comparative statement of the quantities of timber brought to depôt and sold :—

Year.	Timber in cubic feet.				
	Brought to Depôts.			Sold in Depôts.	Sold locally.
	Teak.	Other.	Total.		
1879—80	8,110	12,286	20,396	11,296	...
1880—81	10,775	13,150	23,925	23,114	77
1881—82	25,404	16,407	39,811	28,966	483
1882—83	15,972	17,988	33,960	40,388	359
1883—84	26,285	17,995	44,280	46,479	666

The figures show improvement on former years. The quantity of timber sold locally during the year is shown in statement appended to para 73 of the report as 666 cubic feet, whereas according to Form No. 62 the quantity is 562 cubic feet. This discrepancy should be explained.

15. The quantities of sandalwood collected and sold during the past five years are given below :—

Year.	Quantity brought to Depôt in Tons.	No. of Tons sold.	Amount realized.	Average Rate per Ton.
1879—80	174¼	101	35,890	355
1880—81	118¼	112½	34,342	305
1881—82	126¾	60¾	14,059	231
1882—83	117½	192¼	77,407	403
1883—84	74¼	86¼	10,908	300

The fall in price and great decrease in quantity sold, were due to a want of demand which equally affected the market in Mysore. The market in India is believed to be somewhat overstocked, and there must be other reasons connected with the countries to which it is exported, of which no reliable information has been obtained.

The increased sale of bamboos is satisfactory. 25,415 bamboos were brought to depôts and 33,379 were sold from depôt, and 62,992 were sold in the forest. The income from bamboos has increased considerably as is shown in para 65, and the demand is met which is perhaps of more importance as the people much need a ready supply of bamboos.

16. It is mentioned in para 57 that the Assistant Comptroller General interfered with a plan introduced by the Deputy Conservator of granting percentage allowances to the Foresters in addition to pay to induce them to exert themselves to bring in additional labor for felling and logging. When the question was referred for the Chief Commissioner's orders, he decided that the system must be discontinued as it was opposed to the general principles upon which the Government works in paying its servants. The charges that had been already incurred were passed as a special case under the sanction of the Government of India.

17. The financial results of the year compared with those of 1882—83 are as follows :—

	1882—83. Rs.	1883—84. Rs.
Receipts	1,38,022	87,822
Charges	75,023	64,783
Surplus....	73,239	12,799

Proceedings of the Chief Commissioner of Coorg, (Revenue-Forest),—dated 24th September 1884.

The receipts have fallen off by Rs. 50,200, while the expenditure increased by Rs. 10,240. The large decrease in gross and net revenue is due to the same cause which produced the increase of revenue noticed in last year's report. It is due simply to the fact that only Rs. 10,908 could be realized by sale of sandalwood against Rs. 77,407 in the preceding year. Under timber, the receipts rose considerably.

The increased expenditure is not all due to the larger amount spent on plantations as the Deputy Conservator might be understood to state; it is also due to increased charges under head I (*a*) 'Timber'.

The expenditure on timber operations during the year exceeded that of the previous year by Rs. 5,610. This was due apparently to larger quantity of timber collections; but the Deputy Conservator should have accounted for the increase.

The ratio which charges bore to receipts was 85·42 or 38·5 more than in the previous year. This is unsatisfactory, but the explanation is that more was spent on plantations and that sandalwood could not be sold in large quantities.

H. WYLIE, MAJOR,
Secretary.

To—The Commissioner of Coorg.
The Deputy Conservator of Forests, Coorg.
The Superintending Engineer with reference to para 12.

No. 320—176.

COORG COMMISSIONER'S OFFICE,
Dated 16th August 1884.

From

The Commissioner of Coorg.

To

The Secretary to the Chief Commissioner of Coorg,
Bangalore.

SIR,

I have the honor in submitting the annual report of the Deputy Conservator of Forests for the year 1883—84 to offer the following observations.

2. The desirability of placing the Deputy Conservator under my orders was represented in my letter No. 909—384 of the 22nd March 1884, and although objected to by the Deputy Conservator for reasons which he gives in detail will, if adopted, be likely to succeed equally well as in other Provinces of India. The Chief Commissioner can act the part of referee whenever necessary.

3. The arrangement by which Mr. Muttanna has been placed in charge of the forests of North Coorg was judicious, as he had before no definite duties to perform. The forests in that part of the country need more attention, as they are not yet properly worked, with the exception only of the Anekadu forest, which is close to Fraserpet.

4. It will be observed that the extent of the Reserved forest is given at 233 square miles, the same as in the last year. As observed by Mr. Dickinson the appointment of a Settlement officer is greatly needed to dispose of the numerous claims set up by ryots against the line of demarcation; for until they are finally adjudicated, no land can be regarded as fully reserved.

5. The Survey Department has advocated the use of stone pillars for tri-junction stations—a plan which it has been pointed out to the Deputy Conservator, may be adopted with advantage in the demarcation of the eastern forests.

6. The survey of the ghat forests was completed by Mr. Morrell under special engagement. The line requires alteration in several places before being finally reserved. These forests will be protected chiefly for climatic reasons, and are valuable mostly on account of the cardamom gardens, which are leased out by the Revenue authorities. They immediately adjoin the large sacred forests, which line the eastern slopes of the ghats at the source of the Cauvery and its first tributaries.

7. As observed in the remarks made upon last year's report, the forests require to be worked upon some more definite plan than that described by the Deputy Conservator. The first step needed is the marking off of the forests into convenient blocks, in view to their resources being accurately ascertained.

8. The necessity of concerting better measures for the protection of the forests against fire and trespassers is obvious. The Deputy Conservator has been informed that the co-operation of the Revenue authorities will not be wanting if desired. Although the prosecution eventually failed in the important case of encroachment referred to, 70 logs of timber were confiscated. The case against the Mutaddi of the Ranger's Office exposed serious defects in the system of accounts, to which the Deputy Conservator's attention has been directed.

9. The Deputy Conservator's remarks as to the susceptibility of the forests to fire during the last hot weather are correct. They were very numerous everywhere, the lanthana all round Mercara and down the ghats was in a blaze.

10. The letting out of the forests for grazing is objectionable for obvious reasons. The Deputy Conservator has reported that the plan having failed will not be repeated. The privileges of the ryots to grazing will be restricted on the appointment of a Settlement officer to decide the extent of their claims. It may be mentioned that similar privileges are enjoyed also by the Amrut Mahal Department of the Mysore Government for their cattle: and arrangements are being made by which notice will be given of their movements to the Deputy Conservator, and wilful damage to trees be checked.

11. The attention of the Deputy Conservator has been drawn to the smallness of the number of young teak saplings to be noticed in the regular teak zone near Nalkere: also to the probability that those which are sprouting up in the Anekadu forest may have some connection with the dying out of the bamboos with which that forest abounds. Natural reproduction might possibly be aided in North Coorg by better protection and the sowing of seed. At present, these forests are full of crooked and stunted trees, which are of little or no value. Soft woods especially the Dindiga (*Anogeisons Latifolia*) abound, and while the other valuable hard trees fall to the departmental axe, they are left to flourish, and will in all probability continue to do so, until a sale for them is obtained by the construction of a railway past Fraserpet.

12. The spread of the lanthana in the Attur forest close to Fraserpet is truly wonderful, and may be expected in time to improve the character of the forest in the manner observed. At present, it has its value in making the forest impenetrable, and leads to a hope that it may enrich the soil of the abandoned estates, which are overgrown with it in the vicinity of Mercara and down the Sampaji and Periyambadi Ghats.

13. It will be observed that the area of plantations has increased from 554 to 830 acres. The account given by the Deputy Conservator of the coup system once pursued at Nalkeri is brief. The planting out of seedlings close together is undoubtedly preferable; as rank grass is such a formidable enemy if allowed sufficient space to make head.

14. Mr. Dickinson deserves much credit for his sandal plantations, especially those of Gangavara and Tittimatti. They should not however be too much scattered or be opened on too large a scale, for even after the initiatory difficulties have been surmounted, there is a fear that unforeseen calamities may befall the young trees in further stages. It is very noticeable that of the mature sandal trees to be met with, many are of little value, and this fact must be taken into account in all calculations of plantation profits. The need of lateral shade is very obvious, as those nearest the hedge do better than those in the centre. It is satisfactory also to be able to testify to the good work which is being done in the Anekadu and Kutampole teak plantations. Both of them promise well.

15. A good word may be said here also for the planters; for though they did infinite damage in the commencement of coffee cultivation by the way they cleared the fine primeval forest, they are now doing much towards the re-aboisement of the country by planting valuable trees of the cedrela variety for shade. Their labors in this respect far exceed those of the Forest Department.

16. The improvement of the present means of communication is most essentially needed for the remunerative working of the Coorg forests, as may be observed from the concluding remarks made in para 55 of the Deputy Conservator's report. It is hoped that the matter will receive further attention, for as yet very little has been done. The proposed road to Hunsur requires to be pushed on, and bridges constructed where necessary.

17. The increase in the number of logs felled and taken to depôt is satisfactory. The quantity felled measured 53,154 cubic feet or 6,553 cubic feet more than in the previous year, to which has to be added 666 logs moved by private purchasers from land not made over to the Department. 46,479 cubic feet of timber were sold from depôts against 40,388 cubic feet in the previous year. The average price realized per cubic foot was Rs. 0—14—6 for teak and Rs. 0—12—0 for honne and Rs. 0—5—11 for other wood. 2,306 poles were also sold, and 911 cart-loads of firewood at Rs. 0—13—0 per cart-load. The number of bamboos disposed of at depôts

amounted to 33,379 and realized Rs. 989—9—7; while 104,955 were cut on license on fees paid at the rate of Rs. 1—8—0 per cart-load of 100, and realized Rs. 1,569—8—10. The desirability of reducing the fee so as to encourage felling has been pointed out. At present the reed is almost a nuisance in many parts of the forest, and great numbers have died out lately especially at the foot of the Sampaji Ghat. The small tough variety known as the "Kal-bidaru" is prized more than the large hollow variety, so well known in Burmah. The demand may be expected to increase greatly on the extension of a railway to Coorg.

18. The quantity of sandalwood brought to depôt was 74½ tons, against 117½ in the year previous, or 43 tons less. The quantity sold was 36¼ tons or 156 tons less, and leaving 107 tons in stock.

19. The following figures show the financial results for the last five years. It will be noticed that while the charges have been heavier than in the year previous by Rs. 10,[illegible], chiefly owing to the expenditure on plantations, the surplus revenue is Rs. 60,439 less, which loss of revenue from being so large, has affected the financial results of the Province :—

Years.	Receipts.	Charges.	Surplus.
	Rs.	Rs.	Rs.
1879—80	1,01,786	55,164	46,622
1880—81	87,857	56,487	31,370
1881—82	1,00,364	59,858	40,506
1882—83	1,38,022	64,783	73,239
1883—84	87,822	75,022	12,800
Average Rs.....	1,03,170	62,262	40,908

20. The decrease is mainly due to the short sale of sandalwood, the price of which fell heavily as in the case of most other products. As the market appears to be glutted, prices are not likely to revive. The result of the sales of this valuable wood during the past five years is as follows :—

Year.	Amount sold in tons.	Amount Total.	Realized per ton.
		Rs.	Rs.
1879—80	101	35,890	355
1880—81	112½	34,324	305
1881—82	60¾	14,059	231
1882—83	192¼	77,407	402
1883—84	36¼	10,908	300
Average.. ...	100½	34,517	343

21. The realizations from leasing forest produce came to Rs. 2,144, of which Rs. 1,309 represents the collection of arrears. The demand was Rs. 1,646 or Rs. 550 less. The articles comprised under this head embrace honey, wax, saffron, resin, tamarind, soap, and gall-nuts, &c. for all of which the demand for export is limited. The want of a local market for such produce renders it inexpedient to collect them departmentally as in the Bombay Presidency.

22. Although not especially alluded to by the Deputy Conservator, it has to be noticed that the revenue realized through the Revenue authorities by cardamom leases amounted to the consierablde sum of Rs. 21,765—4—3, and had it not been for this

item over which the Forest Department has no control, there would have been actually a deficit of Rs. 8,965 against the Department instead of the small surplus of Rs. 12,800 shown this year. The revenue demand under this head was Rs. 20,810—7—10or Rs. 694--15—8 less than in the previous year. Leases for the privilege of cultivating this valuable spice in the forests of the western ghats are granted to respectable ryots for a period of seven years, two of which have yet to run.

23. In a similar manner the Revenue Department affords material but unrecognized assistance in collecting sums under the head of other sources on account of the value of timber growing on lands, which were sold by them under the Waste Land Rules, or were taken up for cultivation with cereal crops; also on account of the seigniorage levied on trees which were unauthorizedly felled on Paisari (Government) lands. A number of encroachments on Government land, which were brought to book, also served to swell the revenue, as the value of the timber was recovered and credited to the Department. The total receipts amounted thus to Rs. 10,046—14—7 or Rs. 3,271—12—4 more than in the previous year. As in the case of cardamoms these collections though difficult to realize, are made without any cost to the Forest Department.

24. The cost of establishment including batta and contingencies amounts to Rs. 29,985—11—9 against Rs. 29,134—3—7 in the previous year, and that of working charges to Rs. 45,037—0—3 against Rs. 35,648—7—4. The ratio which these charges bear to receipts is 85·42 or 38·5 more than in 1882—83.

I have the honor to be

Sir,

Your most obedient Servant,

W. HILL,
Commissioner of Coorg.

PROGRESS REPORT

OF THE

FOREST ADMINISTRATION IN COORG

FOR

1883—84

INTRODUCTION.

The Coorg Forest Division has been under my charge during the year excepting for three months, part of August, September, October and part of November, when it was administered by Mr. Sub-Assistant Conservator M. Muttanna.

2. The Commissioner of Coorg has recently asked my opinion on the advisability of making the Forest officer subordinate in all matters to him. My opinion was that such a change would be inadvisable under the present constitution of the Department. It would be an advantageous arrangement if Coorg were under a Conservator of Forests who would advise the Commissioner in professional matters on equal terms. Advice from a subordinate is often not well received and it can well be imagined that there would be differences of opinion for which there would be no referee. If the Coorg Forest Department were amalgamated with that of Madras as regards its administration, this difficulty would be solved. But so long as it remains a Deputy Conservator's charge with no professional chief, he must be allowed freedom of action as regards the management of the Reserved forests.

3. It is a matter for future consideration whether it would not be advisable to amalgamate with Madras and by making South Canara, Coorg and North Malabar into one Forest charge considerably lighten the expense of administration in each District. This plan would have other advantages which need not be discussed here.

4. On my return from leave I placed Mr. Muttanna in direct charge of North Coorg, an arrangement which is working well.

CHAPTER I.

AREAS AND BOUNDARIES.

5. No addition has been made to the area of the Reserved forests. The survey of the Ghat forests not having been completed yet, and there being still a few alterations to make, they have not been declared Reserved forests. The area therefore remains 233 square miles.

6. The appointment of a Settlement officer to settle the areas adjoining the Reserved forests that it is proposed to take in, has not yet been made. It will be as well to wait till the new Act is made applicable to Coorg.

7. The boundaries of all the eastern forests have been cleared, and arrangements are being made for the erection of stone pillars on them, where they adjoin coffee estates.

8. A statement is appended showing the length of lines cleared :—

Name of Forest.	Miles.	Amount.			Remarks.
Ghat Forest	69	222	0	6	
Nalkere do	22½	108	4	0	
Hatgat do	18	63	14	8	
Mavukal do	2	4	8	0	
Yedavanad do	29½	51	10	8	
Arkere do	16¼	44	3	8	
Devamachi do	22½	63	15	0	
Anekadu do	35¼	74	1	8	
Dubare do	18¾	69	10	8	
Gangur do	37	60	5	4	
Karmad Teak Plantation, Hatgatnad	2	8	10	8	
Total.....	272¾	771	4	10	

CHAPTER II.

Surveys, Working Plans and Annual Plans of Operations.

9. *Surveys.*—The survey of the Ghat forest demarcation line has been carried on during the year by Mr. Morrell, and was nearly completed in May. Some of the work done by Native Surveyors will have to be revised next season.

10. Several small plantations were surveyed with the result that they came out smaller than they had been estimated, which shows the importance of surveying them, it being impossible to regulate expenditure if the area is not accurately determined.

11. *Working Plans.*—The preparation of working plans has not yet been undertaken and, although the sooner it is taken in hand the better, it can only be done by degrees as it is necessary for the officer to give his whole time to the careful study of one forest alone. This cannot be done without neglecting other work.

12. However, much more attention is being given to the equalization of fellings. The locality in which the fellings are to be made is determined, and a general idea of how they are to proceed is gradually being formed. Selection fellings must continue the order of the day, as in most of the Coorg forests there are plenty of overmature trees to be extracted. But any working plans made now for our high forests must be provisional, as we are not sufficiently well acquainted with the laws of natural reproduction of the various species. Reproduction fellings as far as teak goes have not been successful, and, until we can hit on the way to make them successfully, no permanent working plans can be made.

13. A plan of operations has been made out for the coming year showing what timber is to be felled and in what localities. The roads and buildings to be made and plantations to be formed, as well as the old work to be kept up. This will serve to regulate fellings and other works, as well as to check the expenditure under the different heads.

CHAPTER III.

Protection and Improvement.

(1) *Establishments.*

14. As stated in last year's report the establishment is too small for the increased work put upon it. No alteration has been made during the year, but sanction has been obtained to employ a few extra men on the temporary scale. By this means one of the larger forests has been cut up into smaller charges, but the other large forests will have to be divided up before safety from fire can be insured.

(2) *General Protection and Breaches of Forest Law.*

15. As noted last year the breaches of Forest Law are not numerous and of a petty nature in the reserved forests. This year there have been none of importance, but there have been a good many instances of trespass and firing the forest. The

forests were closed during the dry weather, but the efforts to keep people out were not very successful, very few cases of trespass having been brought to book. The jungle men (Kurambars), who are the worst trespassers, are extremely difficult to catch.

16. Some cases of selling timber off bané land were reported and one person was prosecuted, fined in the District Magistrate's Court and let off on appeal. Since this such cases are referred to the Revenue authorities.

17. The following statement shows the number of cases which were prosecuted :—

FORM No. 52.

Prosecutions for breaches of Forests Rules during the year, 1883—84.

Forest Division.	Cases pending.	New cases of the month.					Disposed of during the month.						
		Injury to forest by fire.	Unauthorized felling and misappropriation of wood and minor forest produce.	Grazing without permission in tracts in which grazing is not allowed.	Other offences.	Total new cases.	Convictions.		Acquittals.		Total.		
							Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
North Coorg	...	...	...	1	...	...	1	1	1	...	...	1	1	
Do	...	...	...	..	1	...	1	1	1	...	...	1	1	
Do	...	...	...	...	...	1	1	1	4	...	...	1	4	Pending.
Do	...	...	...	...	...	1	1	1	1	...	...	1	1	
South Coorg	...	...	...	...	...	1	1	...	...	1	1	1	1	
Do	...	...	...	1	...	...	1	1	1	...	...	1	1	
Do	...	...	...	...	...	1	1	1	1	...	...	1	1	
Mercara	...	...	...	...	...	1	1	...	...	...	...	...	...	
Total...	...	...	...	2	1	5	8	6	9	1	1	7	10	

18. A serious charge against the North Coorg Ranger's Office Mutsaddi of fraud and misappropriation of Government money has been brought. A warrant has been out for his arrest for sometime, but he has evaded it until a few days ago when he gave himself up to the Court.

(3) *Forest Fires.*

19. It was a trying year owing to the long dry season, lasting from November till the 20th April, and numerous fires occurred which however were usually put out before much was burnt. There is no doubt that most of these were put in intentionally, so easy a thing to do that it is not surprising that no one was found out. To light a fire in the jungle is the work of an instant and, before the fire is discovered, the person may be miles away from the place. The only thing to do, is to increase the number of guards, encourage vigilence by suitable rewards in case of success, and make smaller Forester's charges.

20. With the available means, every effort was made this year to ensure success. The two forests in which the worst fires occurred were Dubare and Hatgatnad. They are always difficult forests to protect: Dubare, because the labor is very uncertain and independent, and because of the coolies' habit of absenting themselves on bazaar's day and not returning for two or three days. It was during one of these periods that the big fire occurred. Hatgatnad was most unfortunate in the Forester getting seriously ill in the very nick of time. The Ranger took up the work until another man could be brought up. This man being a stranger to the forest, the result was unfortunate, as it was natural to expect. In the other forests, the fires, although numerous, were not extensive. Much has been learnt by the year's experience, and no doubt a better success will be attained in future years. But the Coorg forests overrun as they have always been by Kurambars, Yeravars and Coorg

ryots after game are certainly not easy to protect. The results however compare well with those of 1882, although the season was almost as bad as regards the duration of the dry weather.

21. As will be seen from Form No. 51 the area successfully protected was 113,665 acres out of 123,292 acres attempted, or 92·2 per cent. The cost of protection was Rs. 2,029 or Rs. 10—8—0 per square mile against Rs. 2,446 and Rs. 13 per square mile last year. This saving of Rs. 2—8—0 per square is the result of better supervision and measurement of work and is thus satisfactory.

(4) *Grazing and Fencing.*

22. The Yelsavirshime forests were let for grazing in order to put a check on the indiscriminate grazing of Mysore cattle. The Arikere forest in South Coorg was let for the same reason.

23. The amount obtaining from grazing leases was as follows :—

	Rs.	A.	P.
Yelsavirshime forests	50	0	0
Anekadu	100	0	0
Arikere	30	0	0
From Gauligers	65	0	0
Grass from Mercara Fuel Plantation	16	7	6
Total	261	7	6

24. An offer was lately made to lease the Dubare forest for grazing and cutting the grass to put into silos, but the offer was considered too low, and there would be danger of plants being cut with the grass, so it was not thought advisable to accept it.

25. The list of ryots' cattle for which grazing is claimed, attached to last year's report, is being revised by the Revenue authorities. For some of the forests, especially those in North Coorg, it shows a much larger number of cattle than ought to graze or that really do graze in them. It has not been accepted by the Forest Department as a correct list and was merely put into last year's report to show that the matter of grazing was being discussed.

(5) *Natural Reproduction.*

26. There is not much to be said on this point; the seeding of the previous year for most forest trees, as also for sandal, was a good deal below the average. It is therefore probable that reproduction during the year was poor, but it is not possible to judge for a year or two, because plants are not seen till they get above the grass The seeding of the year under report was a good one for nearly all forest trees and especially for teak and honne (*Pt. marsupium*)

27. In most of the forests where grazing is not excessive, a good sprinkling of honne and blackwood seedlings are seen generally. Teak seedlings even in the teak zone, are much scarcer and are generally seen in groups. They are however much hardier and have not so many enemies as the others and form a fair proportion of the old stock.

28. In the forests of North Coorg near the villages, where grazing is excessive, seedlings of any kind are very scarce. These areas are however not very extensive and when attention can be given to closing and fencing portions, their state will be improved.

29. So far the production of seedlings under lanthana is not noticeable, but as it gets older it will no doubt get higher and thinner, and it is probable that there will then be enough light for the seeds to germinate. In and around Mercara the growth of young trees in the lanthana is most marked, and if it were not for the mischievous propensities of the people in setting fire to it, and thereby killing out the young trees (these being mostly of evergreen kinds and easily killed by fire) the lanthana would soon be a thing of the past in that locality.

30. A good many bits round Mercara have of late years been made over to the Department and it is hoped by degrees to consolidate them into blocks. when

it will be possible to protect them from fire and cutting, so that they will eventually be of use as fuel reserves to the town.

31. The result of the seeding coupe in Nalkere cannot be reported on as yet. Probably it will be some years before any decided success will be apparent, though it is to be hoped that the full crop of seed this year will leave its mark.

(6) *Artificial Reproduction.*

32. The year was a good one for planting, and much good work was done. The teak plantations were enlarged by 126 acres and the sandal plantations by 157 acres.

The planted area is now—

Teak	429	acres
Sandal	278	"
Fuel	85	"

To show the value of these areas for the sandal alone, it is shown in para 63 that about 20 trees go to a ton, and as they do not require much room it is thought that at least 400 trees per acre will remain for the final crop. Putting the price per ton very low at Rs. 300, the value of the crop will be Rs. 6,000 per acre. From all that is known of sandal 40 years seems to be the time for it to come to maturity. Discounting then at 4 per cent, the present value of these plantations is Rs. 1,300 or Rs. 3,31,400 for the 278 acres. The cost up to date has it is true been heavy, because experience has to be bought, but even that it is a mere nothing when compared with the value. The total expenditure has been Rs. 22,900, this accumulated at compound interest at 4 per cent for 40 years will amount to Rs. 1,09,942 to set off against the magnificent total of Rs. 16,68,000. Previously planted areas were well tended. A few small new clearings have been made for sandal aggregating about 10 acres, also 3 small clearings for teak above ghat and one large one below ghat at Kutampole aggregating 150 acres.

33. At Kutampole the clearing on being surveyed turned out only 37 acres instead of 60 as was estimated. This arose from the deceptive nature of the land, and to avoid any mistake of the kind this year the new clearing has been surveyed before planting and turns out about 140 acres. Mr. Tod, the contractor, has received the contract rate for planting 60 acres and thus owes the Department a considerable amount, namely the contract rate for planting 23 acres, which will have to be deducted from the amount he has to receive during the year for planting the new clearing.

34. The new plantings at Kutampole, both those of 1882 and 1883, have been very successful and the growth of the plants is remarkable, compared with other plantations in Coorg. In December last the plants being then 19 months old in the 1882 clearing and 7 months old in that of 1883, the former averaged 11′ in height and the latter about 3′. Since that however owing to the long dry weather there has been hardly any growth.

35. The work done at Karmad was principally clearing the weeds in the nnes, cutting creepers, girdling old jungle trees of which there are still a good many left although the work has been going on for a good many years at intervals. If it had not been for them something would have been obtained already from thinnings, but the latter have been as yet too insignificant to mention. By clear felling and careful weeding from the first the new plantations will be made to pay very much sooner than the old ones, which were planted partly under shade and allowed to get weedy directly after planting.

36. A clearing of 30 acres was opened in Anekadu in North Coorg and successfully planted by the Forester at the rate of Rs. 43 per acre. It is hoped that this rate may be lowered for future clearings. Scraping was resorted to to get rid of the enormous stifling crop of grass which grows up as soon as jungle is cleared and prevents all tree growth except that of the inferior fast growing kinds. This operation is expensive, but will be cheaper in the end than constant and what seem to be interminable weedings.

37. Teak nurseries for the coming season's work are ample and contain more plants than will be required for the plantations. What remain over will be put out in open spaces in the forest.

38. The sandal plantations were fairly successful and would have been more so, had it been possible to allow money. As it was in North Coorg somewhat more land was got ready than was ordered, and it was necessary to stop some of the work. The areas left unstocked on this account are being now cleared and will be planted up in the coming season. With the 278 acres now fully stocked it will not be necessary to make large additions in future, and there will be a good deal of work to consolidate what is already planted.

39. In South Coorg owing to a scarcity of seed very little was done to supply up the half planted areas in Nalkere and Karmad, measuring in all some 15 acres. This was unfortunate as a year's growth was lost and the same weeding had to be done as if the plants were really there. At Tittimatti the Forester did good work and this is now one of the best sandal plantations in Coorg next to Gangavara. The average cost for new work was Rs. 40 the acre and for weeding and up keep Rs. 15. It is probable that considerable expenditure will be incurred for some years on the up-keep of these, as it is noticed that even in the oldest parts (4 years' old) a thick crop of grass still grows up and, if the grass is allowed to get any height, and partially cover the trees, the branches die back. The growth of grass is however becoming much less thick, so that gradually the weeding expenses must diminish. In a few years it will be possible to allow a limited amount of grazing which will effectually keep down weeds. Some of the older planting might now be grazed over, but they are too small to make it worthwhile to fence them off from the younger bits. It is however better to lay out money on weeding and insure the future of these plantations so long as due economy is observed.

46. This year's experience has shown that sandal grows better with lateral shade than alone. To get this lateral shade all jungle tree stumps in the clearings are now allowed to keep their shoots, these being kept within bounds by judicious thinnings.

(7) *Cutting of Creepers, &c.*

41. Creepers were cut in small areas in Nalkere and Anekadu, and teak plants and trees freed from cover. More attention will be given to this point by degrees, but so far it has not been possible to get as much done as could be wished.

(8) *Experiments and Exotics.*

42. Of the ceara seed put down at Kutampole, a good proportion germinated but are reported to have been eaten by rats and only about 200 plants remain. These are growing satisfactorily.

43. The *cocoa* plants which survived the transplanting are doing well. It was expected that they would suffer in the dry weather as they are planted quite in the open. They however stood the long dry season wonderfully well, in fact made growth which hardly anything else did. It would seem so far that Kutampole, situated as it is at the foot of the ghats at about 500′ above sea level, is quite a suitable climate for cocoa.

44. The experiment of planting cinchona at Mercara continues. But the land is mostly old abandoned coffee gardens in which the soil is poor, and a large proportion of plants is lost. Still those that have established themselves are doing fairly well, and the land is thus utilized. The condaminea will be put on the highest hills in the neighbourhood. The ledger in the sheltered places.

Mr. Gannie kindly forwarded a lb. of robusta and a packet of ledger. The latter came up well, but the former very badly. It would seem that this is a feature of robusta seed as it has been experienced here in several instances.

45. The experiments with *wattle* (*dealbuta*) were not successful. The plants would not transplant, but died when put out almost to a plant. This is quite according to former experience. The other experiment was not much more successful. The seed put down in lines germinated, but damped off in the heavy rain. If water were available, it would probably do well to sow it in double lines in the dry weather in site, and water it, but this would be a very expensive method. A few plants remain from this experiment, and it will be interesting to note their growth, which is very small up to date.

46. The Java figs and plants of kigelia pinuata are growing, but suffer during the monsoon. Some seed of the Syncarpia Laurifolia were sown in beds and germinated well. There are about 200 plants to put out, which will be planted out in the vicinity of the nursery.

47. Appended is the register of rain-fall at various stations. The rain-fall was somewhat above the average.

The figures for Kutampole are for part of the year only. Mr. Tod thinks that fully 30 inches fell before he received the gauge.

Register of Rain-fall at Forest Stations in Coorg during 1883—84:—

Months.	Fraserpet.		Dubare.		Gangavara.		Tittimatti.		Karmad.		Nalkere.		Maldare.		Kutampole.	
April 1883 ...	7	38	4	50	...	...	2	35	4	10	6	95	...	...	...	...
May do ...	4	70	5	80	...	...	6	5	6	5	6	10	...	...	...	...
June do ...	2	96	3	34	9	70	5	25	10	50	9	40	...	60	30	90
July do ...	11	97	16	90	19	60	16	5	21	85	21	50	13	65	89	56
August do ...	8	8	6	65	8	60	11	85	10	40	9	60	7	65	58	...
September do ...	...	7	1	20	3	50	2	45	...	65	4	10	...	...	39	...
October do ..	11	50	11	40	8	70	8	80	6	45	6	60	8	80	21	35
November do ...	8	62	...	...	..	...	5	...	4	10	5	90	2	85	7	55
December do ...	2	70	...	...	3	...	1	50	...	35	1	70	..	...	...	60
January 1884 ...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...
February do ...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...
March do ...	...	...	...	...	...	...	..	...	..	...	...	...	...	..	...	...
Total.....	52	92	49	79	48	10	59	25	64	45	71	85	33	55	246	96

(9) *Communications and Buildings.*

48. The Aramanebane-Nagaraholé road is now formed the whole distance of 10 miles except about 1½ in the middle. The crossing over the Lakshmantirtha was improved, but the approaches require more cutting down. The expenditure on it was Rs. 159—10—0. The Department Public Works was asked to take over the road from Tittimatti to Nittur, of which this forms a part, as a Local Fund road, but could not do so as that Department has not full authority over the money. Being a road much used by the public, it ought to be a Local Fund road, and it would be a relief to the Forest Department if it were taken off its hands, for the forests require opening up in all directions which can only be done slowly with the funds at its command; it is thus of importance that all its funds should be spent on real forest roads.

49. A new road was traced from Tittimatti through Arikere to the Lakshmantirtha river where a Forester's Lodge is to be built for the Forester in charge of South Arikere and East Hatgatnad. This has been made into a new charge, and put under a temporary Forester pending the revison of the Forest Establishment. This road will be produced to meet the Nagaraholé-Morkal road about 2 miles from Morkal, and will thus traverse right through the middle of Arikere and Hatgatnad forests and make another connecting line between Tittimatti and Nagaraholé. It will be a most useful inspection road, and a great part of it will be of service for extraction of timber.

50. Other roads were kept up but they are mostly mere tracts, and require a good deal of work in cutting, draining and bridging which they can only get by degrees as funds permit.

51. The expenditure on roads was as follows :-

	Rs.	A.	P.
Nalkere-Hunsúr, &c. .. .	159	10	0
Hatgat-Tittimatti	197	15	0
Dubare	52	0	0
Maldare-Tittimatti	50	1	8
Anekadu	12	10	8
Tittimatti-Mavukal	49	8	0
Arikere	21	1	4
Gandhadagundi	0	12	0
Anekadu	4	4	0
Total ..	547	14	8

52. The scheme for running a tramway into the Nalkere forests has been submitted for orders. The Superintending Engineer advises that the trace should be surveyed and a road formed along it. This would be a very good plan as a good road is much required. It would enable the Department to bring out logs 20 or 30 cubic feet larger than the biggest hitherto extracted.

53. The Kargode lodge was nearly completed. Rupees 332—8—2 have been spent on it up to date including the Forester's lodge and godowns.

54. The expenditure on buildings was as follows :—

No.	Names.	Amount.		
1	Nagarahole Bungalow (Nalkere)	27	14	8
2	Aramanebane	11	9	4
3	Karmad	4	0	0
4	Tittimatti Bungalow	9	8	0
5	Maldare	39	11	4
6	Dubare	52	9	4
7	Hirikere	6	12	0
8	Fraserpet Sandalkoti	34	4	0
9	Ramaswamikanave Bungalow	5	15	0
10	Yerekolli Anekadu	94	8	4
11	Yadavanad	3	4	0
12	Mercara Plantation Hut	23	0	0
13	Do Depôt	48	2	0
14	Kargode	332	8	2
15	Gangavara	12	11	8
	Total Rs.....	706	5	10

CHAPTER IV.

YIELD AND WORKING.

(1) *Departmental Operations.*

55. One thousand, seven hundred and eighty-six trees yielding 2,944 logs aggregating 53,154 cubic feet were felled and logged. These were principally selected ancient trees with a few from plantation clearings. In the southern teak forests operations are being carried further and further east where the old teak trees are of smaller dimensions than in the western side of the teak zone, and they are therefore more readily cartable. What is chiefly wanted to work the forests more equally is better means of transport. With the end in view, roads will have to be opened in the directions in which it is wished to work.

56. Of the 2,944 logs prepared, 2,578 logs measuring 44,280 cubic feet were taken to depôt. There is room for a considerable extension in working, could the difficulties of extraction be got over. It was hoped that the limited felling labor available might be economized by the use of a steam feller, but the reports of one in use in the Burmah forests are so unfavorable that the idea was abandoned.

57. The abolition of kumri cultivation has too caused several families of Kurubars to emigrate, so that it is with much difficulty that the felling and logging of the

usual quantity can be done, without increasing that quantity. With a view to induce the Foresters to bestir themselves to get in fresh Kurubars, a small percentage on the fixed felling charge was given to them with good results. But the plan was objected to by the Assistant Comptroller General as contrary to rules and had to be stopped. The rule in this case, where the amount involved is very small, and the official is in receipt of so small a salary, seems rather too hard and fast.

From the wording of para 5, Chapter 2 of the Account Code, it does not appear to be intended to be a general rule, but only applying to officer performing duties for Municipalities and Funds. It is therefore a question whether something might not be allowed to the discretion of heads of office in such matters.

58. An abstract of the yield from each forest is appended :—

Name of Forest.	Wood.	Quantity. No.	Quantity. Cubic Feet.
Nalkore Forest ...	Teak	969	21,541
Do ...	Honne	71	648
Do ...	Otherwood	83	2,797
Hatgatnad do ...	Teak	99	1,696
	Honne	45	1,114
	Otherwood	34	1,030
Arikere do ...	Teak	47	1,202
	Honne	15	252
	Otherwood	20	569
Mavukal do ...	Teak	54	1,237
	Honne	104	1,456
	Otherwood	142	2,092
	Do Poles	91	...
	Bamboos	28,590	...
Devamachi do ..	Teak	123	848
	Honne	92	868
	Otherwod	26	453
	Do Poles	2,852	...
	Bamboos	39,950	...
Dubare do ...	Teak	119	2,714
	Honne	56	1,507
	Otherwood	52	543
	Do Poles	406	...
Anekadu do ...	Teck	70	1,077
	Honne	265	4,268
	Otherwood	246	3,210
	Firewood (cart-loads)	1,090	...
	Bamboos	18,033	...
Yadavanad do ...	Teak	39	420
	Honne	86	1,135
	Otherwood	57	477
	Do Poles	88	...
	Bamboos	1,990	...
	Total.....	96,034	53,154
Abstract.			
	Teak	1,550	30,785
	Honne	784	11,248
	Otherwood	660	11,171
	Do Poles	3,437	...
	Firewood (cart-loads)	1,090	...
	Bamboos	88,563	...
	Total.....	96,034	53,154

59. The value of the work done by Government bullocks was Rs. 1,032—12—0 against an expenditure of Rs. 872—1—8. A statement will be found in the Appendix showing the details of work done and the expenditure.

Coorg Forest Department.

Statement showing the work done by Government bullocks during the year 1883—84 :—

Description of Work.	Work done in 1883—84. Quantity. No	C. ft.	Amount.			Items.	Feed and Cost.		
Bamboos from Anekadu to Fraserpet ...	9,275	...	138	15	0	Gram ...	212	4	1
Do from do, to Mercara ...	1,050	...	39	0	0	Grass ...	187	11	9
Logs from Nallur to Fraserpet ...	5	73	9	2	0	Shoeing ...	52	0	4
Bamboos from Anekadu to Bakka ...	6,700	...	67	0	0	Sundries ...	26	5	6
Do from Bakka to Fraserpet ...	1,109	..	16	8	0	Repair of carts ...	69	10	5
Junglewood poles to do	15	...	2	0	0	Pay of drivers ...	354	1	7
Poles	96	...	11	0	0				
Logs from Nallur to Mercara	80	1,452	400	2	6				
Do Anekadu to do	43	898	217	1	6				
Sundries	100 poles.		116	7	0				
Carriage of tent	7 days.		10	8	0				
Firewood from Kudlur Bakka to Fraserpet Distillery	5	cart-loads.	5	0	0				
Total... ...	18,476	2,423	1,032	12	0	Total... ...	872	1	8

60. Twenty-five thousand, four hundred and fifteen bamboos were brought to depôt against 28,334 last year. The number of bamboos sold from depôt was 33,379 against 30,472 last year. As stated in last year's report, it pays better to sell bamboos in the forest, and what are brought are to suit the convenience of the local public who do not wish to go to the forest for them.

61. Nine hundred and eleven bandy-loads of firewood were delivered to the Fraserpet Distillery, as compared 1,587½ last year.

62. The quantity of sandalwood collected was 74½ tons as compared with 117½ tons last year. The quantity was below the estimate owing to the illness and death of the contractor employed to collect it. Of the quantity brought in 880 trees produced 46 tons, 1 cwt. and 3 quarters, giving an average of 19·106 trees to the ton.

63. It is found that a mistake was made in striking the average weight of a tree last year, a lot of pieces having been included to make up the total weight. This year only those trees which come in whole have been used to get the average. Taking the average of 19·106 trees to the ton, it may be said that it took 1,421·5 trees to produce the year's collection.

(2) *Removal of Produce by Purchasers from Reserved Forests.*

64. The quantity of produce removed by purchasers was as follows :—

Forest.	Wood.	Quantity. No.	C. ft.
Mavukal Forest	Bamboos	26,590	...
Devamachi do	Other wood poles	1,489	...
Do do	Bamboos	34,812	...
Anekadu do	Do	600	...
Yadavanad do	Do	340	...
Ganagur do	Other wood	27	666
Do	Bamboos	650	...
	Total.....	64,508	666
	Abstract.		
	Other wood	27	666
	Do poles	1,489	...
	Bamboos	62,992	...
		64,508	666

65. The increase in the sale of bamboos from forests is satisfactory, and it is hoped that it will continue to be so. The sale depends a good deal on the prosperity of the neighbouring Mysore ryots, who are the main purchasers. In a bad crop year it will decrease.

The following table shows that it has been better during the past years than for many preceding years :—

1874—75	1875—76	1876—77	1877—78	1878—79	1879—80	1880—81	1881—82	1882—83	1883—84
6	...	...	100	245	838	992	740	578	1,569

66. The North Coorg forests which have been closed as regards the cutting by purchasers of bamboos for some years have been again opened this year, and it is expected a considerable quantity will be extracted from them in future.

67. As regards timber removed by purchasers no great extension is expected. Matti beams and poles are sold from selected areas. These are made out of small trees. This is done because there is a very limited sale for matti (*Terminalia tomentosa*) in large scantlings, whilst the small trees are much sought after by natives for beams for their houses.

68. The quantity of trees removed from Unreserved Government jungles on payment was :—

5	Teak trees	10	0	0
24	Honne	141	0	0
32	Nandi	144	0	0
1	Bité	3	0	0
1	Hebbalasu	10	0	0
1	Sampige	4	0	0
1	Jack	4	0	0
3	Junglewood	9	0	0
68	Total Rs.....	325	0	0

69. The quantity of timber sold on lands given for coffee was as follows :—

		Rs.	A.	P.
13	Teak trees	260	0	0
111	Honne	666	0	0
194	Bité	970	0	
371	Nandi	1,669	8	
215	Matti	860	0	0
93	Bilvara	279	0	0
35	Nerlu	105	0	0
1,032	Total Rs....	4,809	8	0

(3) *Free Grants of Forest Produce.*

70. No free grants were made from the Reserved forests during the year.

71. The following statement shows the grants of timber to ryots from village forests and paisari lands:—

Honne trees	43
Bité "	2
Hebbalasu "	1
Nandi "	22
Sampige "	2
Matti "	49
Junglewood "	27
Junglewood poles, posts, &c.	84
Do Cart-loads	3
Bamboos	3,780
Total..	4,013

(4) *Transports and Exports of Forest Produce.*

72. The following produce was exported:—

	Logs.	C. ft.
Teak	1,844	24,313
Honne	455	9,944
Other wood	190	4,656
Do poles	3,636	0
Bamboos	84,111	0
Total ...	89,736	38,913

73. A summary is appended showing the total yield of the State-forests under all heads:—

I*a*.	1,443 logs=25,061 cubic feet teak					22,729	14	9			
"	542 " 11,450 " honne					8,611	8	0			
"	543 " 9,968 " other wood					3,688	11	0			
"	2,306 " " " poles					1,741	4	10			
									36,771	6	7
I*b*.	911 firewood (cart-loads)					740	10	0			
									740	10	0
I*c*.	33,379 " bamboos					989	9	7			
									989	9	7
II*a*.	14 logs= 216 cubic feet teak										
"	18 " 128 " honne					2,433	12	0			
"	43 " 218 " other wood										
"	2,401 other wood poles										
II*b*.	155 cart-loads firewood					46	2	0			
II*c*.	104,955 bamboos					1,569	8	10			
II*d*.	Grazing and fodder grass					237	7	6			
									4,286	14	4
					Total.....	...	...	...	42,788	8	6

CHAPTER V.

Financial Results.

74. The following statement shows the results of 1883—84 compared with the previous three years:—

	1881—82.	1882—83.	1883—84.
Receipts	1,00,364	1,38,022	87,742
Expenditure	59,858	64,783	75,042
Surplus	40,506	73,239	12,700
Percentage of Expenditure to Receipts	59·6	46·9	85·4

75. The revenue is less than the estimate by Rs. 22,258 owing to the non-sale of sandalwood, prices having gone down unprecedentedly. This, it is believed, is principally on account of the large sales which have been made in Mysore for some years past, and may be also partly on account of the war in Tonquin. It is believed that sales in Mysore were considerably lessened for the same reason, so it is to be hoped that the market will right itself again before the next sale. If so, next year's revenue will be increased as much as this has been diminished.

76. The proportion of expenditure to revenue is much higher than in any of the previous 3 years owing to the increased expenditure on productive works such as plantations which took Rs. 19,393.

But these represent capital well laid out and will give a splendid return in due time. But had the usual quantity of sandalwood been sold at ordinary prices, the revenue would have been Rs. 1,17,000 when the proportion of expenditure to revenue would have been only 64-1.

77. The receipts under Head Ia Timber have again increased considerably. The figures for the last 6 years are given below, which show that the revenue has multiplied itself by nearly nine times during that time. But with improved modes of carriage and conversion there is still room for a large increase of revenue :—

1878—79.	1879—80.	1880—81.	1881—82.	1882—83.	1883—84.
4,276	9 163	14,334	19,745	26,221	36,771

78. The following statement shows the receipts and expenditure of the year under the three main budget heads :—

Budget Heads.	Receipts.	Charges.
I. Timber, &c. removed by Government Agency	49,410	29,755
II. Other Revenue	38,332	6,512
III. Formation, Protection, &c. of Forests	...	38,775
Total Rs.....	87,742	75,042

79. The revenue was derived from the following sources :—

	Budget Sub-heads.	Amount.			Total.		
Ia	Timber	36,771	6	7			
b	Firewood and Charcoal	740	10	0			
c	Bamboos	989	9	7			
d	Sandalwood	10,908	2	6			
					49,409	12	8
IIa	Timber	2,433	12	0			
b	Firewood and Charcoal	46	2	0			
c	Bamboos	1,569	8	10			
d	Grazing and fodder grass	237	7	6			
e	Other minor produce	2,139	14	10			
...	Cardamoms	21,765	4	5			
					28,192	1	5
III	Confiscated drift and waif wood	16	0	0	16	0	0
Va	Fines and Forfeitures	59	8	0			
b	Refunds	17	11	0			
c	Other Sources	10,046	14	1	10,124	1	1
	Total Rs.....	...	...	...	87,741	15	2

CHAPTER VI.

Unreserved Forests.

80. The Bane Rules still remain unsettled.

81. The Commissioner has made proposals to give the working of the Village forests into the hands of the Subedars, but it seems better that the Forest Department should have the general control, which the issue of licenses for timber gives it. The matter is now under consideration.

82. *Sandalwood.*—Compensation was recovered from different people for the destruction of sandalwood in their land to the amount of Rs. 46. But this forms a small portion of the real amount of damage done to sandalwood by holders of land. Especially in Nanjarajpatna hobli, it is constantly burnt in the lanthana hedges and there is no means of effectually stopping the mischief.

83. The enumeration of sandalwood trees gave 2,230 trees to be cut per annum for the twenty years from 1883 to 1903. At the average of 19·106 to the ton, there are 116 tons per annum for that period including chips or about 100 tons of good wood. The last two years 192 tons have been collected so that 40 tons remains to the good. If 20 tons be excluded for damage done by burning hedges, &c., there remain 20 tons to be collected over and above the normal supply.

CHAPTER VII.

General Remarks.

84. The Forest establishment worked well for the most part: Ranger Madaiya was ill in the middle of the fire season, as was also the Hatgatnad Forester. The whole establishment wants revision: its inadequacy is every year more and more felt.

85. The office establishment worked fairly well, but requires revision. Work has so much increased of late years that it is found difficult to keep it from getting into arrears.

86. Mr. Muttanna, Sub-Assistant Conservator, performed his duties with zeal and intelligence and is well worthy of the promotion for which he has been recommended. He has just left for the Forest School to follow the officer's class there. He is accompanied by a Coorg named Kongandra Ponnappa who is to go through the Ranger's course.

F. B. DICKINSON,

Dy. Conservator of Forests,

Coorg Division.

Form No. 49.
FOREST DEPARTMENT, COORG.
Area of Reserved Forests, 1883—84.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st April 1883. Acres.	Area on 1st April 1883. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other Heads. Acres.	Area on 31st March 1884. Acres.	Area on 31st March 1884. Equivalent in square miles.	No. and Date of Notification of addition or transfer.	
Coorg.	North Coorg ...	Kattepura	585	1	...	...	585	1		
		Sandalkoti	276	...	...	...	276	...		
		Allur	395	1	...	...	395	1		
		Gangur	5,989	9	...	...	5,989	9		
		Yedavanad	6,887	11	...	...	6,887	11		
		Anekadu	11,507	18	...	...	11,507	18		
		Dubare	11,365	18	...	...	11,365	18		
	South Coorg ...	Devamachi	7,569	12	...	...	7,569	12		
		Mavukal	8,188	13	...	...	8,188	13		
		Arkerinad	17,280	27	...	...	17,280	27		
		Hatgatnad	27,520	43	...	...	27,520	43		
		Nalkeri	25,742	40	...	...	25,742	40		
	Ghat Forests ...	Urti and Kerti... ...	19,200	30	...	...	19,200	30		Estimated.
		Chambu and Quinad ...	6,400	10	...	...	6,400	10		Do
		Total.....	148,903	233	...	...	148,903	233		

Area of Plantations, 1883—84

No.	Names of Plantations.	On 1st April 1883. Area. Acres.	On 1st April 1883. Cost. Rupees.	Added during 1883—84. Area. Acres.	Added during 1883—84. Cost. Rupees.	On 31st March 1884. Area. Acres.	On 31st March 1884. Cost. Rupees.	Remarks.
	Regular Plantations.							
1	Karmad Teak ...	189	21,881 0 0	...	624 0 0	189	22,505 0 0	
2	Kutampole " ...	85	12,762 0 0	49	5,902 0 0	134	18,664 0 0	100 acres newly cleared.
3	Kare ura " ...	14	1,950 0 0	...	5 0 0	14	1,955 0 0	
4	Tittumatti " ...	5	341 0 0	1	17 0 0	6	358 0 0	Clearing not burnt in time owing to very early rain.
5	Anekadu " ...	5	610 0 0	27	1,170 0 0	32	1,780 0 0	Transferred from "Cultural operations".
6	Ammale (Nalkeri) " ...	5	488 0 0	13	807 0 0	18	1,295 0 0	A portion of clearing unplanted for want of plants.
7	Anekadu " ...	...	... ...	10	341 0 0	10	341 0 0	Transferred from "Cultural operations"
8	Maldare " ...	...	... ...	5	155 0 0	5	155 0 0	
9	Hurlikal (Attur Forest) " ...	...	... ...	13	571 0 0	13	571 0 0	
10	Irumani (Hatgat) " ...	...	... ...	8	166 0 0	8	166 0 0	A part of the cost of clearing went under the head of the Irumani Coupe.
11	Werrara Fuel ...	75	6,122 0 0	10	2,321 0 0	85	8,443 0 0	
12	Gangavara Sanual ...	57	6,076 0 0	13	1,179 0 0	70	7,255 0 0	Part of 1882's clearing still only partially stocked and so not included.
13	Fraserpet Holageri " ...	5	772 0 0	...	94 0 0	5	866 0 0	
14	Do Gandadagundi " ...	15	304 0 0	2	371 0 0	17	675 0 0	
15	Herikere " ...	13	2,051 0 0	37	1,307 0 0	50	3,358 0 0	
16	Hulugur " ...	1	140 0 0	...	... ...	1	140 0 0	
17	Nagarhole (Nalkeri) " ...	12	1,350 0 0	...	460 0 0	12	1,810 0 0	
18	Balumani (Mavukal) " ...	12	809 0 0	10	676 0 0	22	1,485 0 0	
19	Dubare (Bungalow) " ...	5	327 0 0	3	208 0 0	8	535 0 0	
20	Chilliakere (Dubare) " ...	6	485 0 0	...	438 0 0	6	923 0 0	
21	Kargodu (Malumbi) " ...	6	355 0 0	4	207 0 0	10	65 0 0	
22	Banavara (Nidita) " ...	8	146 0 0	2	305 0 0	10	451 0 0	
23	Maldare (South Dubare) " ...	8	920 0 0	4	645 0 0	12	1,565 0 0	
24	Hurlikal (Anekadu) " ...	7½	648 0 0	8	90 0 0	16	738 0 0	
25	Attur-Bakka (do) " ...	...	... ...	23	530 0 0	23	530 0 0	New.
26	Balugodu (do) " ...	½	52 0 0	...	... ...	...	523 0 0	Area deducted.
27	Karmad (Hatgat) " ...	15	966 0 0	...	443 0 0	15	1,411 0 0	
28	Yarrekolli (Anekadu) " ...	..	... ...	1	5 0 0	1	5 0 0	
	Total....	549	60,018 0 0	243	19,137 0 0	792	79,155 0 0	
	Cultural Operations.							
	Fraserpet Nursery	...	64 0 0	...	106 0 0	...	170 0 0	
	Nalkeri	5	500 0 0	...	59 0 0	5	559 0 0	
	Murkal (Hatgat)	...	377 0 0	10	... ...	10	377 0 0	
	Irumani (do)	...	268 0 0	5	... ..	5	268 0 0	Estimated areas under treatment.
	Mavattur (Mavukal)	...	119 0 0	10	... ..	10	119 0 0	
	Sunnakal Marta (Attur) ...	...	123 0 0	8	91 0 0	8	214 0 0	
	Total.	5	*1,451 0 0	33	256 0 0	38	1,707 0 0	*Rupees 714 less owing to three cultural operations being carried on to Regular Plantations.
	Grand Total	554	61,469 0 0	276	19,393 0 0	830	80,862 0 0	

Abstract.

Regular Plantations. 10 Teak plantations ...	303	38,082 0 0	126	9,758 0 0	429	47,790 0 0	
1 Fuel do ...	75	6,122 0 0	10	2,321 0 0	85	8,443 0 0	
17 Sandal do ...	171	15,864 0 0	107	7,058 0 0	278	22,922 0 0	
	549	60,018 0 0	243	19,137 0 0	792	79,155 0 0	
Total of Cultural Operations	5	1,451 0 0	33	256 0 0	38	1,707 0 0	
Grand Total.....	554	61,469 0 0	276	19,393 0 0	830	80,862 0 0	

Form No. 51.

FOREST DEPARTMENT, COORG.

Area of Forest Tracts protected from Fire during the dry season of 1883, *to accompany Report for* 1883—84.

Division.	Forest Tracts.	Up to 31st May 1883.		During the dry season of 1883.				Total Cost up to end of May 1884.	Year in which protection commenced.	Remarks.
		Area actually protected.	Total Cost.	Area attempted to be protected	Failures.	Actually protected.	Amount expended.			
Coorg.	Dubare	11,362	2,241	11,362	3,585	7,777	190	2,431	1877	
	Anekadu	11,500	3,082	11,500	98	11,403	290	3,952	1878	
	Devanachi	7,569	1,903	7,569	436	7,133	131	2,039	1878	
	Karmad	229	280	...	...	...	...	280	1877	Included in the Hatgatnad Reserve.
	Yedavanad	7,833	1,406	7,833	27	7,806	189	1,595	1878	
	Gonagur	5,989	752	5,989	221	5,768	74	826	1878	
	Nalkeri	25,742	2,797	25,742	436	25,316	417	3,214	1878	
	Mavukal	8,188	1,739	8,188	479	7,709	225	1,964	1878	
	Gangavara Sandal Reserve ...	69	112	70	...	70	78	190	1877	
	Arkere	17,280	319	17,280	1,806	15,474	130	449	1878	
	Hatgatnad	27,520	2,803	27,520	2,549	24,971	256	3,059	1878	
	Kutumpole	...	83	134	...	134	...	83	1881	
	Frazerpet Sandal Plantation ...	18	43	20	...	20	19	62	1881	
	Mercara Fuel Reserve ...	...	...	85	..	85	21	21	1883	
	Tittimatti Balumam Sandal...	...	...	...	...	...	9	9	1883	Included in the Mavukal Reserve.
	Total.....	123,299	17,545	123,292	9,627	113,665	2,029	16,574	...	

Charged in previous year	17,068
Do in 1883—84	1,808
Do up to 31st May 1884 ...	698
Total	19,574

Form No. 52.

Prosecutions for breaches of Forest Rules during the year 1883—84.

Forest Division and Civil District.	Cases pending from 1882—83.	New Cases of the year.					Total cases.	Disposed of during the year.						Cases pending at the close of the year.
		Injury to Forest by fire.	Unauthorized felling or appropriation of wood and minor Forest Produce.	Grazing without permission on tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
North Coorg ...	...	...	1	1	2	4	4	4	7	...	...	4	7	...
South Coorg ...	...	...	1	...	2	3	3	2	2	1	1	3	3	...
Mercara ...	...	...	...	...	1	1	1	...	...	...	...	...	...	1
Total	...	...	2	1	5	8	8	6	9	1	1	7	10	1

Form No. 53.

Summary of Revenue, 1883—84.

Budget Heads of Receipts.	Total.		
I.—Timber and other produce removed from the Forests by Government Agency:—			
a. Timber	36,877	1	7
b. Firewood and charcoal	740	10	0
c. Bamboos	1,0[illegible]8	10	7
d. Sandalwood	10,908	2	6
e. Grass and other minor produce	...	...	...
II.—Timber and other produce removed from the Forests by consumers or purchasers:—			
a. Timber	2,405	4	0
b. Firewood and charcoal	46	2	0
c. Bamboos	1,511	12	10
d. Grazing and fodder grass	237	7	6
e. Other minor produce	2,139	14	10
Cardamom	21,765	4	3
III.—Confiscated drift and waif wood...	16	0	0
IV.—Revenue from Forests not managed by Government:—			
a. Duty on foreign timber and other forest produce	...	...	...
b. Revenue from shared and private forests	...	...	...
V.—Miscellaneous:—			
a. Fines and forfeitures	59	8	0
b. Refunds	18	3	0
c. Other sources	10,043	6	1
Total Receipts.....	87,822	7	2

Form No. 53.

FOREST DEPARTMENT, COORG.

Summary of Expenditure, 1883—84.

Budget Heads.	Total.		
A.—Conservancy and Works.			
I.—Timber and other produce removed from the forests by Government agency :—			
a. Timber	13,860	11	11
b. Firewood and charcoal	454	4	9
c. Bamboos	292	7	4
d. Sandalwood	3,504	11	3
e. Grass and other minor produce .. —	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers	...	...	...
III.—Confiscated drift and waif-wood	...	...	...
IV.—Revenue from forests not managed by Government—			
a. Duty on foreign timber and other forest produce	...	...	...
b. Revenue from shared and private forests.	...	...	...
V.—Rent of leased forests and payments to share-holders in forests managed by Government	...	...	...
VI.—Live Stock, Stores, Tools and Plant :—			
a. Purchase of cattle	200	0	0
b. Feed and keep of cattle	872	1	8
c. Stores, tools and plant	680	2	9
VII.—Communications and Buildings :—			
a. Roads and bridges	547	14	8
b. Buildings	706	5	10
c. Other works	...	...	...
VIII.—Demarcation, improvement and extension of forests :—			
a. Demarcation	771	4	10
b. Compensation for land and rights	75	0	0
c. Surveys and working plans	494	7	9
d. Plantations	19,393	2	5
e. Protection from fire	1,808	0	3
f. Other works	15	0	0
IX.—Miscellaneous :—			
a. Refunds	8	0	0
b. Law charges	1,191	14	10
c. Other charges	161	6	0
Total A, Conservancy and Works.....	45,037	0	3
B.—Establishments.			
I.—Salaries :—			
a. Conservators	...	...	...
b. Superior Officers	11,747	6	8
c. Subordinate Forest and Depôt Establishments	11,227	14	10
d. Office Establishments	2,998	15	2
e. Deputation and Special Allowances	...	..	...
II.—Travelling Allowances :—			
a. Conservators	...	...	...
b. Superior Officers	2,246	9	6
c. Subordinate Forest and Depôt Establishments	737	0	7
d. Office Establishments	215	6	11
III.—Contingencies :—			
a. Stationery	8	8	0
b. Carriage of Tents and Records	179	11	2
c. Rents, Rates and Taxes	21	0	0
d. Pay of Police Guards	...	...	...
e. Official Postage	831	14	6
f. Sundries	276	4	5
Total B., Establishments.....	29,985	11	9
Grand Total of Expenditure.....	75,022	12	0

G. J. VAN SOMEREN, MAJOR,
Assistant Comptroller General, (Forests).

Form No. 54.
FOREST DEPARTMENT, COORG.
Account Current for the year 1883—84.

Dr.				*Cr.*		
To Cash Balance	...	...	...	By Expenditure as per Annual Summary	75,022	12 0
„ Revenue as per Details in Annual Summary	87,822	7 2		„ Forest Cash Remittances (Local). ...	...	...
„ Forest Cash Remittances (Local). ...	...	...		Remittances to State Treasuries in Coorg	87,575	12 8
Remittances from State Treasuries, Coorg	75,008	0 0		„ Advances Recoverable ...	36,625	2 7
„ Advances Recoverable ...	36,623	6 7		„ Inter Departmental Transfers ...	...	...
Government of Madras ...	16	8 0		Public Works Department, other Branches	166	10 6
				„ Telegraph Department ...	80	0 0
				„ Cash Balance ...	...	...
Total.....	1,99,470	5 9		Total	1,93,470	5 9

Form No. 55.
Outstandings and Liabilities on account of Contractors and Disbursers for 1883—84.

Division.	Department Debtor.				Department Creditor.			Balance due.		
	At commencement of year.	Recoveries in Cash and Value of supplies and work done during the year.	At close of year.	At commencement of year.	Payments made during year.	At close of year.	To Department (Outstandings).	By Department (Liabilities).	Remarks.
Coorg Forest Division...	0 12 0	36,623 6 7	36,624 2 7	...	36,625 2 7	36,625 2 7	1 0 0	...	
Total.....	0 12 0	36,623 6 7	36,624 2 7	...	36,625 2 7	36,625 2 7	1 0 0	...	

Form No. 56.
Revenue received and Outstandings on account of Revenue during 1883—84.

Division.	Particulars.	Outstandings at commencement of year.	Value of Sales and other Revenue during year.	Total.	Amount realized during year.	Balance due to the Department at end of year.	Remarks.
Coorg Forest Division.	Timber and other produce, &c.	8,236 13 7	88,336 3 8	96,573 1 3	87,848 7 2	8,724 10 1	* Amount realized as per Annual Summary ... 87,822 7 2 Amount written off as per Chief Commissioner's orders of different dates 26 0 0 Total Rs.....87,848 7 2
	Total.....	8,236 13 7	88,336 3 8	96,573 1 3	87,848 7 2	8,724 10 1	From private purchasers.

In April 1883.				
Sanction to write off the sum of Rs ...	20	0	0	*Vide* Chief Commissioner's Proceedings No. 118—33, dated 10th April 1883.
In May 1883.				
Do do the sum of Rs	6	0	0	Do do No. 43, dated 27th October 1883.
Total.....	26	0	0	

CALCUTTA,
The 15th July 1884.

G. J. VAN SOMEREN, MAJOR,
Assistant Comptroller General, (Forests)

Form No. 57.

FOREST DEPARTMENT, COORG.

Financial Results of the year 1883—84.

Division.	Timber and other produce removed by Government Agency.		Other Revenue.		Formation, protection and improvement of Forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.		Receipts.	Charges.	
Coorg	49,579	29,746	38,243	6,516	38,761	87,822	75,023	

Form No. 58.

Trees felled by Government Agency during the year 1883—84.

Division.	Trees felled.		Remarks.
	Description of Wood.	Number or Quantity.	
Nalkere Forest	Teak	373	
	Honne	39	
	Other wood	49	
	Total.....	461	
Hatgatnad Forest	Teak	82	
	Honne	34	
	Other wood	26	
	Total.....	142	
Arkerinad Forest	Teak	35	
	Honne	25	
	Other wood	12	
	Total... ..	72	
Mavukal Forest	Teak	43	
	Honne	78	
	Other wood	104	
	Total.. ...	225	
Devamachi	Teak	91	
	Honne	48	
	Other wood	19	
	Total... ..	158	
Dubare	Teak	88	
	Honne	29	
	Other wood	34	
	Total	151	
Anekadu	Teak	66	
	Honne	202	
	Other wood	152	
	Total.....	420	
Yedavanad	Teak	39	
	Honne	70	
	Other wood	48	
	Total.....	157	
	Grand Total... ..	1,786	
	Abstract.		
	Teak	817	
	Honne	525	
	Other wood	444	
	Total.....	1,786	

Form No. 59.

FOREST DEPARTMENT, COORG.

Out-turn of Timber and other Produce cut and collected by Government Agency during the year 1883-84.

Division.	Produce cut and collected.				Remarks.
	How obtained.	Description.	Number or Quantity.	Cubic feet.	
Nalkeri	Selection Fellings.	Teak	960	21,541	
		Honne	71	648	
		Other wood ...	83	2,797	
		Total.....	1,123	24,986	
Hatgatnad		Teak	99	1,696	
		Honne	45	1,114	
		Other wood ...	34	1,030	
		Total...	178	3,840	
Arkeri		Teak	47	1,202	
		Honne	15	252	
		Other wood	20	569	
		Total	82	2,023	
Mavukal		Teak	54	1,237	
		Honne	104	1,456	
		Other wood ...	142	2,092	
		Do poles ...	91	...	
		Bamboos	28,590	...	
		Total...	28,981	4,785	
Devamachi		Teak	128	848	
		Honne	92	868	
		Other wood ...	26	453	
		Do poles ...	2,852	...	
		Bamboos	39,950	...	
		Total...	43,043	2,169	
Dularé		Teak	149	2,714	
		Honne	56	1,507	
		Other wood ..	52	543	
		Do poles ...	406	...	
		Total.....	663	4,764	
Anekadu		Teak	70	1,077	
		Honne	265	4,268	
		Other wood ...	246	3,210	
		Firewood	1,090	...	
		Bamboos	18,033	...	
		Total...	19,704	8,555	
Yedavanad		Teak	39	420	
		Honne	86	1,135	
		Other wood ...	57	477	
		Do poles ...	88	...	
		Bamboos	1,990	...	
		Total...	2,260	2,032	
		Grand Total...	96,034	53,154	
	Abstract ...	Teak	1,550	30,735	
		Honne	734	11,248	
		Other wood ...	660	11,171	
		Do poles ...	3,437	...	
		Firewood... ...	1,090	...	
		Bamboos... ...	88,563	...	
		Total.....	96,034	53,154	

Form No. 60.

FOREST DEPARTMENT, COORG.

Timber and other Produce received from Forests in Sale Depôts during the year 1883—84.

Division.	Depôt.	Produce received. Description.	Number or Quantity.	Cubic feet.	Remarks.
Coorg.	Hunsur	Teak	746	19,995	
		Honne	143	3,152	
		Other wood	145	3,356	
		Total	1,034	26,503	
	Tittimatti Depôt ...	Teak	32	536	
		Honne	18	318	
		Other wood	21	293	
		Other wood poles	1,834	...	
		Total.....	1,905	1,147	
	Fraserpet	Teak	285	2,795	
		Honne	226	3,977	
		Other wood	464	2,898	
		Other wood poles	109	...	
		Bamboos	18,891	...	
		Total.....	19,955	9,670	
	Avarti	Teak	271	2,722	
		Honne	47	840	
		Other wood	42	617	
		Other wood poles	39	...	
		Total.....	399	4,179	
	Mercara	Teak	8	237	
		Honne	84	1,603	
		Other wood	49	941	
		Other wood poles	7	...	
		Bamboos	1,282	...	
		Total.....	1,427	2,781	
	Bakka (Anekadu) ...	Other wood poles	15	...	
		Bamboos	5,262	...	
		Total.....	5,277	...	
	Maidare	Other wood poles	70	...	
		Total.....	70	...	
	Firewood cart loads ...	Firewood cart loads	1,037	...	
		Total.....	1,037	...	
		Grand Total.....	31,104	44,280	
		Abstract.			
		Teak	1,342	26,285	
		Honne	515	9,890	
		Other wood	721	8,105	
		Other wood poles	2,074	...	
		Firewood	1,037	...	
		Bamboos	25,415	...	
		Total.....	31,104	44,280	

Form No. 60.—*Concluded.*

Division.	Depôt.	Produce received. Description.	Number or Quantity.	Cubic feet.	Remarks.
Coorg.	Fraserpet Sandalkoti. ...	Good wood	37½	Tons.	
		Inferior wood	37½	do	
		Total.....	74½	Tons.	

Form No. 61

FOREST DEPARTMENT, COORG.

Sales of Timber and other Produce cut and collected by Government Agency during the year 1883—84

Depôt or Locality.	Produce sold. Description.	No.	Cubic feet.	Remarks.
Hunsur	Teak	771	20,639	
	Honne	415	9,267	
	Other wood	71	1,609	
	Total	1,257	31,515	
Tittimatti	Teak	2	54	
	Honne	8	16	
	Other wood	12	206	
	Other wood poles	2,045	...	
	Total.....	2,067	396	
Maldare	Other wood poles	70	...	
	Total.....	70	...	
Fraserpet	Teak	368	2,594	
	Honne	9	179	
	Other wood	298	5,393	
	Other wood poles	123	...	
	Bamboos	22,571	...	
	Total	23,369	8,166	
Avati	Teak	295	1,674	
	Honne	26	426	
	Other wood	71	1,087	
	Other wood poles	32	...	
	Bamboos	1,540	...	
	Total...	1,964	3,187	
Mercara	Teak	7	100	
	Honne	84	1,442	
	Other wood	91	1,673	
	Other wood poles	21	...	
	Bamboos	1,856	...	
	Total.....	2,059	3,215	
Bakka (Anekadu)	Other wood poles	15	...	
	Bamboos	7,412	...	
	Total.....	7,427	...	
Firewood	Firewood	911	...	
	Total	911	...	
	Grand Total	39,124	46,479	
	Locally Sold.			
Mavukal	Bamboos	26,590	...	
Devamachi	Other wood poles	1,489	...	
... ...	Bamboos	34,912	...	
Anekadu	Bamboos	600	...	
Yedavanad	Bamboos	340	...	
Ganagur	Other wood	27	...	
	Bamboos	650	666	
	Total.....	64,508	666	
	Abstract.			
	Teak	1,443	25,061	
	Honne	542	11,450	
	Other wood	543	9,968	
	Other wood poles	2,306	...	
	Bamboos	33,379	...	
	Firewood	911	...	
	Total.....	39,124	46,479	
	Sold Locally.			
	Other wood	27	616	
	Other wood poles	1,489	...	
	Bamboos	62,992	...	
	Total	64,508	603	

Form No. 61.

FOREST DEPARTMENT, COORG.

Sales of Timber and other Produce cut and collected by Government Agency during the year 1883-84.

Division.	Depôt or Locality.	Produce sold.			Remarks.
		Description	Number or Quantity.	C. ft.	
Coorg. ...	Fraserpet	Good wood	21½	Tons.	
	Sandalkoti	Inferior wood	14½	"	
		Total.....	36½	Tons.	

Form No. 62.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during 1883—84.

Particulars.	No. or Quantity.	Cubic ft.	Total of each Head. No.	Total of each Head. C. ft.	Particulars.	No. or Quantity.	Cubic ft.	Total of each Head. No. or Quantity.	Total of each Head. C. ft.
Balance at the commencement of the year—					Removed by purchasers from Sale Depôts—				
Teak...	775	10,199			Teak	1,443	25,061		
Honne	451	8,574			Honne	542	11,450		
Other wood	214	3,227			Other wood	543	9,968		
Teak poles	16	...			Other wood poles ...	2,306	...	4,834	46,479
Other wood poles... ...	440	...	1,896	22,000	Firewood	911	...	911	...
Firewood	849				Bamboos	33,379	...	33,379	...
Fire-sticks	252	...	601	...	Total.....			39,124	46,479
Bamboos	8,614	...	8,614	...					
Total Balance.....			11,111	22,000	Sold locally—				
Received from the Forests by Sale Depôts—					Other wood	27	666		
Teak...	1,342	26,285			Other wood poles ...	1,489	...	1,516	666
Honne	515	9,890			Bamboos	62,992	...	62,992	...
Other wood... ...	721	8,105			Total Removal.....			64,508	666
Teak poles	...	...			Balance at the close of the year—				
Other wood poles... ...	2,074	...	4,652	44,280	Teak	674	11,423		
Firewood	1,037	...	1,037	...	Honne	424	7,014		
Bamboos	25,415	...	25,415	...	Other wood	392	1,364		
Received from the Forests and sold locally—					Teak poles	16	...		
Other wood	27	666			Other wood poles ...	208	...	1,714	19,801
Other wood poles... ...	1,489		1,516	666	Firewood	475	...		
Bamboos	62,992	...	62,992	...	Fire-sticks	252	...	727	...
					Bamboos	650	...	650	...
Grand Total.....			1,06,723	66,946	Grand Total.....			106,723	66,946
					Sandalwood.				
Balance remained at the commencement of the year —					Removed by purchasers—				
Good wood	45½	Tons.			Good wood ...	21½	Tons.		
Inferior wood	23½	Tons.	68½	Tons.	Inferior wood	14½	"	36½	Tons.
Received—					Remaining—				
Good wood	37½	Tons.			Good wood	61	Tons.		
Inferior wood	37½	Tons.	74½	Tons.	Inferior wood	46	Tons.	137	Tons.
Grand Total.....			143	Tons	Grand Total.....			143½	Tons.

Form No 63

FOREST DEPARTMENT, COORG.

Timber and other Produce cut, collected and removed from the Forests by consumers or purchasers including Pasture during the year 1883—84.

Division.	Produce removed. Description.	Number or Quantity.	Amount of Revenue.	Amount actually realized during the year	Remarks
Coorg.	*IIa.*				
	Teak	14	216	16	
	Honne	18	128	116	
	Otherwood	43	218	180	
	Other wood poles	2,401	2,120	2,122	
		2,476	2,682	2,424	
	IIb.				
	Firewood	155	55	46	
		155	55	46	
	IIc				
	Bamboos	104,955	1,582	1,570	
		104,955	1,582	1,570	
	IId.				
	Grazing and fodder grass	...	267	237	
		...	267	237	
	IIe. Other minor produce—				
	Honey wax, saffron, resin, Ralu	..	928	1,345	
	Alalekayi (Myrobalans)	...	400	609	
	Tamarind	..	68	78	
	Sigekayi	..	205	67	
	Hulhchalu Hudi, Antavaladakayi	...	20	20	
	Dindiga gum	..	15	15	
	Fodder	...	10	10	
	Cardamoms	...	20,795	21,765	
		...	22,481	23,909	
	III. Confiscated wood	...	16	16	
		...	16	16	
	Grand Total	107,586	27,083	28,212	

The difference between the amount of revenue and amount actually realized is owing to previous year's outstanding balance having been recovered this year.

Form No. 64.

Revenue derived from, and Expenditure incurred on, Timber and other Produce sold to Public Works Departments from Depôt during the year 1883—84.

Name of Department.	Particulars of supplies.	Amount Supplied. No.	Amount Supplied. C ft.	Rate. At	Rate. Per	Amount of Revenue. Due.	Amount of Revenue. Received.	Amount of Revenue. Outstandings.	Cost to Forest Department. Timber expenses under A 1	Cost to Forest Department. Quota of all other Expenditure chargeable against Timber.	Cost to Forest Department. Total.	Comparison of Revenue and Expenditure. Surplus.	Comparison of Revenue and Expenditure. Deficit.	Remarks.
Public Works Departments.	Honne tree ...	1	...	C Rs. 6	per tree									
	Honne logs ...	4	76	As. 8 6	per cft.									
	Do ...	...	4	8	"									
	Do ...	...	1	6	"	167	167	...	94	47	141	26	...	
	Do ...	5	153	8 6	"									
	..i ...	2	27	6	"									
	Other wood tree ..	1	...	C Rs 4	per tree									
	Total .	13	261	...	...	167	167	...	94	47	141	26	...	

Form No. 65.

FOREST DEPARTMENT, COORG.

Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1883—84.

Description of Wood and other Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference.		Remarks.
	No.	C. ft.	Value	No.	C. ft.	Value.	In favor of the year.	Against the year.	
Teak	775	10,199	10,075	674	11,423	8,762			
Honne	451	8,574	4,510	424	7,014	4,"40			
Other wood	214	3,227	1,712	392	4,364	3,136			
Teak poles	16	...	16	16	...	16			
Other wood poles	440	...	440	208	...	208			
Firewood	849	...	174	475	...	237			
Firesticks...	252	...	...	252	...	...			
Bamboos	8,614	...	160	650	...	...			
Total.....	11,111	2 ,000	17,087	3,091	19,801	16,593			
Sandalwood—									
Good wood	45½	Tons.	18,100	61	Tons.	21,350			On account of the depreciation of the price of sandalwood the stock of good wood in hand is valued at Rs 350 instead of Rs. 400 as last year.
Inferior wood	23½	"	752	43	"	1,472			
Total.....	68½	...	18,852	107	..	22,822			
Grand Total	11,179½	22,0 0	35,939	3,198	19,801	39,421	3,482	...	

Form No. 65.

FOREST DEPARTMENT, COORG.

Abstract showing the Value of Live and Dead Stock for the year 1883—84.

Description.	On hand at the commencement of the year.		On hand at the close of the year.		Difference.		Remarks.
	No.	Value.	No.	Value.	No.	Value.	
LIVE STOCK.							
Bullocks	15	600	18	740	...	...	
	15	600	18	740	140	...	
DEAD STOCK.							
Prismatic Compass	2	200	2	200			
Ghat Tracer	1	30	1	30			
Lifting Jacks	2	96	2	96			
Buildings	9	9,600	9	9,600			
Sheds	18	180	18	180			
Tools	1,642	1,642	1,633	1,633			
Carts	10	400	10	380			
Almirahs	5	150	6	200			
Book Shelf	...	.	1	10			
Boxes	29	116	30	120			
Tables	9	45	9	45			
Chairs	7	7	7	7			
Letter Scales	3	36	3	36			
Sandalwood Scales and Weights	1	150	2	250			
Clock...	1	14	1	14			
Tents	2	500	2	500			
Howitzer	3	240	3	240			
Miscellaneous	150	150	160	160			
Total.....	1,894	13,356	1,899	13,701	145	...	
Grand Total	1,909	14,156	1,917	14,441	285	...	

F. B. DICKINSON,
Deputy Conservator of Forests, Coorg.

Mysore Government Press, Bangalore—13-10-84.—250.

No. 1137 F., dated Calcutta, the 7th December 1885.

From—A. MACKENZIE, Esq., Secretary to the Government of India.

To—The Chief Commissioner of Coorg.

I am directed to acknowledge the receipt of your letter No. 1301—255, dated the 30th October last, forwarding the Progress Report of Forest Administration in Coorg for the year 1884-85, with the Commissioner's remarks and your Resolution thereon.

2. The area of Reserved Forests amounted on the 1st April 1885 to 238 square miles, 5 square miles having been added during the year under review. The demarcation lines round the Reserves were cleared, and a more permanent demarcation—partly by stone cairns, partly by cut and numbered stone pillars—has been commenced. The settlement of the Ghat forests remains still in abeyance. It has not yet been decided under what law such settlement shall take place, and the survey of the Ghat forests, which was reported to be nearly completed in May last, has not yet been brought to a close. I am to express a hope that the decision regarding the law under which the settlement is to proceed may be arrived at by an early date, and that efforts will be made to ensure an early completion of the survey, so that the final reservation of the forest property may not be any longer delayed. The collection of data for the preparation of Working-Plans has been commenced, the stock being taken by means of linear valuation surveys. This is satisfactory.

3. The number of offences against the Forest law which were taken into Court amounted again to only 8, and convictions were obtained in every instance. Several cases of damage done to sandal-wood growing on private lands were compounded by the payment of damages. Fire protection, the result of which is exhibited in the following table, was not quite so successful during the year under review as in 1883-84 :—

Year.	Area attempted	Failures	Area protected	Percentage of failures to area attempted.	Cost per square mile protected.
	S. ms.	S. ms.	S. ms.		Rs.
1884-85	194	18	176	9	18
1883-84	193	15	178	8	11
Increase or decrease in 1884-85 ...	1	3	—2	1	7

The total expenditure under fire conservancy rose from Rs. 19,574 to Rs. 22,744, though the area attempted was increased by only 1 square mile. The cost per square mile protected increased from Rs. 11 to Rs. 18. The want of success is ascribed to carelessness on the part of the Subordinate Establishment. The *sine qua non* of forest conservancy is successful fire protection, and His Excellency in Council is glad to observe that you are fully alive to this.

The area of forests which are fire-protected by nature comprises the whole of the evergreen forests on the Western Ghats, which are estimated to contain 349 square miles.

4. It is evident that the Reserved Forests in Coorg must provide a certain amount of grazing. Not only have the Coorg ryots always had free access to the forests for grazing, but their Village Forests are said to be in some instances too small and unsuitable for hot weather grazing. On the other hand, free and uncontrolled grazing is injurious to forest growth in the state of reproduction, and from both points of view an early settlement would seem desirable. When the Revenue Settlement has taken the free user of forest produce into consideration in the fixing of the assessments, free rights in that respect will probably be established by that fact, but where no right to free grazing has been established, the levying of an income from grazing is a legitimate source of Forest Revenue.

It should be decided whether the free grazing of the cattle belonging to the Mysore Amrat Mahal and the Madras Commissariat Depôt is a right by grant, and the limits of the concession should be finally settled.

5. It is not intended that the natural reproduction of a particular year should be described in an Annual Report, and the general progress only of natural reproduction should be noted, or anything special that may have happened during the year, as in the present instance, the flowering of *Dendrocalamus strictus* over large areas. In connection with this, I am to draw attention to the very successful cultural operations that have been undertaken in British Burma, in areas over which the bamboo had flowered and died. These have now been completely stocked with teak at a very low cost. The area of flowering bamboos is carefully fire-traced and burnt over, and teak seed is dibbled in at 5 or 6 feet apart. Without burning, the rats which usually invade areas on which bamboos have flowered, would destroy the teak seed, or the seedlings might be choked by the young bamboo crop.

The results of sowing and planting were as follow :—

	Area at the commencement of the year.	Area added during the year.	Area excluded during the year.	Area at the close of the year.
	Acres.	Acres.	Acres.	Acres.
Regular Plantations . . .	792	158	1	949
Cultural operations . . .	38	...	...	38
TOTAL .	830	157	...	987

The areas added during the year comprise 134 acres of teak and 23 acres of sandalwood plantations. The area of teak plantations now amounts to 563 acres and those of sandalwood to 301 acres.

Sandalwood on private land is gradually destroyed by coffee cultivation, and as no natural reproduction in such localities can be expected, the supply in Coorg will depend more and more on the outturn of the plantations in the Province.

6. The number of trees felled by Government agency, as compared with that of the two previous years, is as follows :—

Year.	Teak.	Other trees.	Total.
1884-85	658	843	1,501
1883-84	817	969	1,786
1882-83	494	1,186	1,680

The yield of the forests seems to have been as follows during the year under review :—

(a). In Reserved Forests :—

	Teak.	Other trees.	Teak poles.	Other poles.	Bamboos.
	C ft	C. ft.	No.	No.	No.
By Government agency . .	28,116	26,779	198	1,505	115,934
	No	No.			
By purchasers . . .	3	452	...	6	184,676
By free grants . . .	...	...	...	...	...
TOTAL .	...	...	198	1,511	300,610

(b). In Unreserved Forests :—

	Teak.	Other trees.	Teak poles	Other poles.	Bamboos.
	No	No.	No.	No.	No.
By Government agency . .	..	...	...	...	...
By purchasers . . .	11	51	...	...	...
By free grants . .	..	139	...	616	7,880
TOTAL .	11	190	...	616	7,880

(c). On alienated land—351 trees.

A summary of the produce disposed of from Reserved Forests is given in paragraph 78 of the Report, and shows that Rs. 52,222 were realised against Rs. 42,788 in the previous year, the income of the dry forest amounting to 6½ annas per acre.

7. Seventy-two and a quarter tons of sandalwood were collected during the year under review, at a cost of Rs. 2,075, whereas last year 74½ tons were collected at an expenditure of Rs. 3,505. The quantity collected is small, but the cost has been reduced from Rs. 47-1 to Rs. 28-11-6 per ton. The work is now done departmentally, which is in every respect considered more satisfactory than the former arrangement.

The income from the sale of sandalwood amounted to Rs. 35,651 against Rs. 10,908 in the previous year, but the stock in hand has been diminished by 46½ tons.

The changes in the income from cardamom were unimportant.

8. The financial results, as compared with those of the previous year, were as follow:—

Year	Receipts	Charges	Surplus
	Rs	Rs	Rs
1884-85	1,13,233	76,952	36,281
1883-84	87,822	75,023	12,799
Increase in 1884-85	25,411	1,929	23,482

The Receipts have increased, but have not reached those of 1882-83.

9. In conclusion, I am to thank you for your review, which evinces great interest in the administration of the Coorg Forests, and to express a hope that the pending questions mentioned in the last paragraph of your review and those noticed in this letter will be finally settled during your visit to Coorg.

No. 1138 F.

Copy forwarded to the Inspector General of Forests to the Government of India for information, with reference to paragraph 2.

Appendix showing the discrepancies noticed in the Forms appended to the Report of Forest Administration in Coorg for 1884-85.

FORM No. 50.

(*Plantations.*)

The total cost during 1884-85 does not agree, as it should (*vide* paragraph 259 of the Forest Department Code, 2nd Edition), with the total of A. VIII. d. in Form No. 53.

FORM No. 63.

(*Timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture.*)

"The total amount actually realized during the year (excluding "Confiscated drift and waif wood") comes to Rs. 26,847, while the corresponding total of Revenue head II. in Form No. 53 is Rs. 27,096.

Government of India Central Printing Office.—No. 363 H. D.—14-12-86.—210.

Exd.—N. C. D.

Proceedings of the Chief Commissioner of Coorg,
(Revenue Forest),—dated 8th October 1885.

READ—

Letter No. 376—177, dated the 13th August 1885, from the Commissioner of Coorg, submitting with observations, the Forest Administration Report of Coorg for the year 1884—85.

No. 1,208—602, dated 8th October 1885.

The Report on the working of the Forest Department of the Province of Coorg for the year 1884—85, has been prepared by Mr. F. B. Dickinson, the Deputy Conservator, and submitted through the Commissioner of Coorg. Its submission has been considerably delayed as though it was due on the 15th July, it only reached this office on the 16th August last. In their Resolution of the 31st May 1883, the Government of India pointed out the inconvenience arising from the irregular transmission of these Forest Reports and desired that greater punctuality should be observe in future. Hereafter the Deputy Conservator will arrange that his Report shall reach the Commissioner of Coorg not later than the 15th June each year, and it should be received in this office by the 15th July to allow ample time for printing and any further references which may be necessary.

2. In letter No. 510 F., dated the 14th June 1882, from the Secretary to the Government of India in the Home Department, the Chief Commissioner was asked to report whether the Madras Forest Act V of 1882, or the Indian Forest Act (VII of 1878) was better suited to the requirements of Coorg, and pending the decision of this question the Governor General in Council deferred orders on Sir James Gordon's proposal to substitute the latter act for Act VII of 1865, which was then, and is still, in force in the District.

The Chief Commissioner (Mr. Lyall) thereupon consulted the local authorities, but his Review of the Report for 1882—83, explained his inability to concur in their preference of the earlier Act. He hoped, as stated in his Review of the Report for 1883—84, to be able to settle the question after he had again visited the District. But this he was unable to do, and he has been unfortunately obliged to leave the country without making a final report to the Government of India.

He has however, promised to favour the Officiating Chief Commissioner with his Notes on the subject, and Mr. Girdlestone accordingly hopes to be in a position to address the Government of India decisively, upon this long pending question, after he has visited Coorg during the approaching cold season.

3. The survey of the Ghaut Forests has not yet been completed. A few miles still remain in North Coorg, and some portion of the work done by the Surveyors must be revised or as the case may be, checked by the Madras Survey Department. These forests are therefore not included in the list of Gazetted Forests. But a small area of other forest land, comprising five square miles, was added to the Government Reserves during the year, thus raising the total area of the reserved forests from 233 to 238 square miles.

4. In the second paragraph of their Resolution, No. 40 F. dated 23rd January 1884, the Government of India emphasized the importance of demarcating the limits of the Eastern Forests by boundary pillars at an early date. A commencement was made during the year under review, and Mr. Dickinson promises that the demarcation will be pushed forward during the current year. The Officiating Chief Commissioner is glad to observe that this work is engaging the attention of the Deputy Conservator. Care must be taken to avoid unnecessary outlay in the preparation and location of the large stone pillars employed.

5. It is satisfactory to learn from the sixth paragraph of the Deputy Conservator's Report, that 283 miles of demarcation lines, 21 feet broad, were cleared during the year. The total cost was Rs.1,137, including the price of demarcation stones. Special care should be taken to keep these lines clear during the dry season, as they are useful in protecting the forests from fires.

6. An attempt was made to protect 1,24,291 acres of forest area from fire during the year and 1,12,485 acres or about 90 per cent were successfully protected. But it is matter for regret that in spite of these measures an area of upwards of 10,000 acres chiefly in the Nalkery, Arekery, and Hatgutnad forests was burnt in a great measure owing to the carelessness of the Forest subordinates in charge. In the opinion of the Officiating Chief Commissioner such gross negligence, as is attributed to the Foresters of Nalkery and Arekery, should have been punished by dismissal, and not by fine. The total cost of protection was Rs. 3,170 or Rs. 18 per square mile, as against Rs. 2,029 or Rs. 10—8—0 per square mile in the year 1883—84, and 2,446 or Rs. 13 per square mile in 1882—83. It is stated in para 21 of the report, that 349 square miles, consisting of the whole of the ever-green forests on the western ghauts, as a rule escape forest fires although no attempt is made to protect them. This information is given for the first time in the report, in accordance with the instructions contained in Circular No. 4 F, dated 14th

Proceedings of the Chief Commissioner of Coorg,
(Revenue Forest),—dated 8th October 1885.

April 1885 from the Secretary to the Government of India in the Home Department, but it is incomplete, as the Government of India required the information with special reference to Forest Reserves, and it is not stated what proportion of the 849 square miles referred to consists of Reserved Forest, nor is it stated whether any of the unprotected forests in other parts of Coorg as a rule escape forest fires besides those on the Ghauts. Care should be taken to give more detailed information on this subject in future reports. The season is again described as having been unfavourable for Forest Protection.

7. The cases under the head of "Breach of Forest Law" were few and trifling. This is satisfactory, if it does not indicate want of vigilance on the part of the Protective Establishment.

8. The Government of India called attention in their Resolution No. 40 F. dated, 23rd January 1884 to the necessity of drawing up formal working plans. The Deputy Conservator reports that it was impossible to prepare working plans for individual forests during the year. At the same time the matter has not been lost sight of, and in the twelfth paragraph of his Report, Mr. Dickinson gives a sketch of the plan which he has this year drawn up for certain of the more important forests.

9. A statement of the cattle for which grazing in Government forests is claimed of the Cultivators is given in the thirtieth paragraph of the Report for the year 1882—83. This list was revised during the year under review by the Revenue Department, but the revised statement has not been submitted apparently for the reason stated by Mr. Dickinson in the twenty-fourth paragraph of the Report, that the number cannot be correctly ascertained so long as the rights of ryots in the forests remain to be settled, and this awaits the appointment of a Forest Settlement Officer, after the question of the new Forest Act to be applied to Coorg has been finally decided. The Commissioner's observations upon this subject, in paras 4 to 7 of his covering letter, deserve special attention.

10. It is estimated, in the twenty-fifth paragraph of the Report, that the number of the Mysore Amratmahal and the Madras Commissariat Depot cattle which graze in the Coorg forests is about 4,000 and 2,000 respectively. These departments appear to have enjoyed the privilege since 1814. when the concession was first obtained from Linga, Raja of Coorg. In 1883 the Deputy Conservator drew attention to the abuse of the privilege and suggested measures for its restriction. A set of rules to regulate the grazing of the Amratmahal Cattle have been recently framed, and are now under the consideration of the Officiating Chief Commissioner. The chief difficulty in connection with the subject turns on the question whether a fee should or should not be levied for the right, and this is complicated by the fact that large numbers of the Madras Cattle are allowed to graze in Mysore Forest without payment of a fee, whereas the Forest authorities in Coorg have consistently maintained that Mysore Cattle, grazing in Coorg, should be subject to a fee per head. Enquiries are being made regarding the practice observed in regard to this point in other parts of British India, and Mr. Girdlestone hopes that he will soon be in a position to submit his conclusion upon the subject, for the orders of the Government of India.

11. The forty-eighth paragraph of the report contains an account of two experiments on silos. One was opened after two and a half months and the other after seven months. In neither case did the experiment succeed, and Mr. Dickinson ascribes the failure to the heavy rain which fell when the first was being closed and the second was being opened. This does not accord with the result of the experiments reported by Sir Herbert Macpherson, who considers that rain, at any rate when the silo is being stored, does not have a prejudicial effect. A complete copy of these p. p. will be sent to Mr. Dickinson for information and guidance.

12. It appears that the natural reproduction of teak was below the average in the southern forests, but in the Northern forests it was better. Honne and Blackwood seem to have seeded fairly well, but the bamboo failed unexpectedly. The artificial reproduction of forests was on the whole successful. The area under teak was enlarged by 134 acres and that under sandal by 24 acres. The addition of 97 acres made during the year to the Kutompole teak Plantation shows that the European Superintendent of that plantation, whose appointment was sanctioned temporarily for 3 years in letter No. 50 F. dated the 1st January 1885, from the Secretary to the Government of India in the Home Department, has so far fulfilled the condition of his appointment.

13. The outlay incurred in the construction and repair of forest roads and huts amounted to Rs. 1,711-13-0 as compared with Rs. 1,254 in the year 1883—84 Of this sum, Rs. 760-6-4, were spent on roads and Rs. 951—6—8 on buildings. The Superintending Engineer's attention should be invited to para 12 of Chief Commissioner's Proceedings No. 842—367 dated 24th September 1884, and he will be requested in a separate letter to report what has passed in connection with the Deputy Conservator's proposal to transfer the road from Tittimatti to Nittur to the P. W. D., to be maintained out of Local Funds.

Proceedings of the Chief Commissioner of Coorg, (Revenue Forest),—dated 8th October 1885.

14. The following comparative Statement shows the number of timber trees felled during the past five years.

Year.	Teak trees.	Other trees.	Total.
1880—81	193	749	942
1881—82	808	741	1,549
1882—83	494	1,186	1,680
1883—84	817	969	1,786
1884—85	658	843	1,501

15. The Statement below gives the quantities of timber brought to the depots and sold during the past five years.

Year.	Timber in cubic feet.				
	Brought to Depots.			Sold in Depots.	Sold locally.
	Teak.	Other.	Total.		
1880—81	10,775	13,150	23,925	22,114	77
1881—82	23,404	16,407	39,811	28,960	483
1882—83	15,972	17,988	33,960	40,388	359
1883—84	26,285	17,995	44,280	46,479	666
1884—85	28,116	26,770	54,890	49,350	618

16. The total revenue yield of the Government forests in Coorg, was Rs. 52,222 against Rs. 42,788 in the preceding year. The details are given in the Statement appended to the seventy eighth paragraph of the Report.

17. The quantities of sandalwood collected and sold during the past five years, with the revenue realized, are given below :—

Year.	Quantity brought to Depot in tons.	No. of tons sold.	Amount realized.	Average Rate per ton.
1880—81	118¾	112½	34,342	305
1881—82	126¾	60¾	14,059	231
1882—83	117½	192¾	77,407	403
1883—84	74¼	36¼	10,908	301
1884—85	72¼	118¾	35,650	300

The price of sandalwood did not improve during the year owing probably to a continuance of the same causes which were noticed in Mr. Lyall's Review and the Report for 1883—84. A larger quantity was however sold.

18. The number of bamboos brought to depots was 36,249 against 25,415 in 1883—84, and the number sold from the depots was 33,457 against 33,379 in 1883—84. 1,84,676 bamboos were sold in the forests. The total amount realized was Rs. 2,873 against 2,421 in the year previous.

19. The financial results of Forest Working in Coorg during 1884—85 as compared with 1883—84, are given below :—

Year.	Receipt.	Charges.	Surplus.
1883—84	87,822	75,022	12,800
1884—85	1,13,233	76,952	36,281

Proceedings of the Chief Commissioner of Coorg,
(Revenue Forest),—dated 8th October 1885.

20. Owing to the larger sales of sandalwood, and a greater demand for timber generally, the receipts exceeded those of the previous year by Rs. 25,411 and the surplus by Rs. 23,481. The increase of Rs. 1,930 in Expenditure was due to a larger outlay under head VIII E. "Protection from fire."

21. It only remains to add that the question of the proposed tramway from Hunsur in Mysore to Nalkeri Forests has engaged Mr. Girdlestone's special attention, and that a separate report has recently been addressed to the Government of India, upon the subject. The Mercara fuel supply alluded to in Colonel Clarke's letter of the 13th August 1885, has also been the subject of separate correspondence, and it has been found necessary to continue for a time the arrangements previously in force for supplying the town, pending the introduction of a more effective and less expensive system. Finally, the Officiating Chief Commissioner has not overlooked the important question, to which the Commissioner makes reference in his third paragraph, of the relations existing between the Forest and the Revenue authorities. In his opinion, these could advantageously be drawn much more closely together than is the case at present in Coorg, and he hopes to take advantage of the opportunities afforded by his approaching visit to Coorg to discuss the subject in detail with Colonel Tredway Clarke and Mr. Dickinson.

A. H. T. MATINDALE.

Secretary.

No. 376—177.

COORG COMMISSIONER'S OFFICE,
Dated 13th August 1885.

From

The Commissioner of Coorg,

To

The Secretary to the Chief Commissioner of Coorg,
Bangalore.

SIR,

I have the honor to forward the Annual Progress Report of the Coorg Forest Department for the year 1884—85.

2. The report, which was received in this Office on the 31st July 1885, was returned to the Deputy Conservator for rectification of some errors, chiefly arithmetical, and was retransmitted to this office on the 6th instant.

3. The Forest Department occupies a position in a large measure independent of this office, though owing to the control exercised by it over forests of every description lying outside the Forest Reserves, and indeed over all land including fields and hittals (backyards of houses) upon which "reserved" timber is standing, it is brought necessarily into close relations with the revenue authorities. While therefore the matters treated of in the report are for the most part of a purely Departmental character, it will be only necessary for me to advert to those topics which concern the Revenue Administration.

4. The question of Ryots, grazing rights in the state reserved forests referred to in para 24 of the report has been under discussion for several years past. Draft Rules providing for the settlement of the prescriptive rights of villagers to grazing their cattle in the Government Reserved Forests, were framed under Act VII of 1865, and submitted from this office in August 1881. Subsequently the extension of Act VII of 1878 (Indian Forest Act) to Coorg was deemed desirable, and as soon as the Act has been introduced it will be practicable to proceed without further delay to investigate and settle the claims on this subject.

5. It is natural that the Coorg ryots, who in former years had the free and unrestricted use of almost illimitable forest, for the grazing of their cattle, should feel the restraints now placed upon that liberty. The people of the Eastern and North-eastern tracts, comprising Yelusavirshime Taluk and parts of Nanjarajapatna Taluk have been the first to suffer by the restrictions, for the Urudves (Village forests) which were assigned to the villages in that quarter in 1874-75 are but small in extent and do not provide hot-weather grazing for the herds, on the other hand the line of Reserved forests had been advanced so considerably as to make it necessary subsequenly to withdraw the line in parts.

6. In 1882 the Forest Department adopted the plan of leasing the right of grazing in the Government Forests in North Coorg to a Contractor who was authorized to levy a fee on every head of cattle admitted therein. The outcry that ensued led the Chief Commissioner to prohibit the arrangement though subsequently the charge was authorized in regard to those herds of Cattle from the adjacent Mysore Districts which it was customary to bring in to graze in the Coorg forests.

7. In the other parts of Coorg where the forests are more extensive, the question in regard to grazing rights is not equally pressing. The Ryots have their Banes (uplands attached to their rice farms) and Barikes (swamp lands) though these have been seriously encroached upon by the extension to them very largely of coffee cultivation. The practice has been to send the cattle into the adjoining forests when the grazing is insufficient within the farm areas, and especially so, when the rice has been transplanted, and it becomes an object to have the cattle removed to a distance. In all these cases, the difficulty of meeting the reasonable requirements of the people can only be solved by a special enquiry and authoritative decision by the Settlement Officer.

8. In connection with the same subject, the Deputy Conservator refers in para 25 to the practice of allowing the Mysore Government Amrat Mahal cattle, as well as the Madras Government Depot cattle at Hunsur, to have free grazing in the Coorg frontier forests. The practice dates from the year 1814, when Captain LeHardy a Commissariat Officer then in charge of the Madras Government Cattle Breeding Establishment at Hunsur, and who was afterwards the first Superintendent of Coorg, fortified by the authority of the Governor, obtained the concession from the Raja of Coorg, who had previously refused to grant it. In his letter proposing the arrangement Captain LeHardy pointed to the facts that the forests in Coorg were very extensive and that they were situated in a good climate, being within the influence of the South West Monsoon, yet to a great extent sheltered.

9. In 1869 when the subject was agitated, the Commissariat Office at Hunsur asserted that " without these frontier jungles it would be impossible to maintain efficiently many of the Amrat Mahal herds, which have not sufficient hot-weather grazing in Mysore." At that time the number sent to graze in Coorg was given as 2,000 Amrat Mahal and a similar number of Madras Public Cattle. They were sent to the Coorg Forests in the first shower of April and May in each year and remained there till September.

10. The subject was brought forward again in 1883 and in his letter of 23rd January 1884 the Deputy Conservator thus explained the grounds on which he urged that some check should be put upon the abuses to which the Reserved forests were exposed. " The cattle come in large herds—the drivers make a camp and settle down for a fortnight or three weeks in one spot, round which the herds, not only of Amrat Mahal cattle, but it is believed, of their own (the herdsmen's) cattle, grazing daily and tread down the whole jungle, destroying quantities of young plants." He proposed that (1) a fee of As. 8 per head per mensem should be charged on all the cattle brought in, to form a fund from which the damage done might be repaired, (2) that the principal Herdsman should be placed under the orders of the local Foresters, whereas at present they defy their orders, and (3) that the number of cattle to be sent each year should be communicated to the Forest Department in time to make adequate arrangements. These proposals were not sanctioned by the Chief Commissioner who considered however that the amount to be realized by charging a fee per head for grazing the Cattle of the Amrat Mahal and Madras Depot Cattle, should be calculated and application made to have the amount shown as " a paper credit."

11. This is not the place for submitting any further suggestions on the subject, but I trust that the attention now again drawn to the matter will lead to some stringent regulation being adopted, in concert with the Madras and Mysore Governments, in order to minimise what has come to be considered apparently as an unavoidable evil.

12. The subject of the fuel supply of the Town of Mercara is adverted to in para 71 of the Deputy Conservator's Report. The reckless manner in which timber in Government Paisari and other forest land, in the neighbourhood of the town, was being cut for firewood, led the late Commissioner and the Deputy Conservator to concert measures last year for regulating the supply by issuing licenses on which certain rates of charge were levied. The tax aroused strong opposition and great complaints were made of the hardship inflicted on the poorer classes of raising the price of a commodity, so indispensable as firewood in a climate such as that of Mercara during the Western monsoon.

13. The matter was personally investigated by the Chief Commissioner during his visit to Coorg in November last, and in an order dated 15th December 1884 he remarked as follows.

" The increasing demand for wood, and the large amount of land taken up as coffee estates, has tended to produce the rapid deterioration of the forest growth on all Government Paisari and Bane land near Mercara, and if the present state of things go on, not only will the forests be permanently destroyed but in the end, wood must become dearer year by year. It is therefore necessary to take measures (1) to protect the Government paisaris and regulate cutting therein, (2) to protect Banes from surreptitious cutting by wood-cutters and others, to obtain for Government in

some shape a light royalty on wood sold by Bane holders, and (3) to protect the holders of coffee estates from surreptitious cutting by wood cutters and others."

14. The arrangements prescribed by Mr. Lyall required that the right of felling in Government Paisaris (forests) should be leased to contractors who should engage to sell firewood and charcoal at certain fixed rates, and to abide by the regulations laid down by the Forest Department as to the places whence the wood should be obtained, and the descriptions of timber to be cut. Bane holders would receive a free pass which would allow them to bring firewood into the town for their own use only. These arrangements were to have come into force on 1st April 1885 but as no contractors came forward with adequate offers, they were not carried out, as reported in my letter No. 219—100 of 16th June last. The system introduced only a few months before of charging a fee on licenses issued for head and cart-loads has consequently been continued.

15. The income of the Forest Department which is shown at para 80 of the report as Rs. 1,13,233 includes the following items which are wholly collected through the agency of the Revenue Officers.

		Rs.	As.	P.
1	Cardamom tax	20,661	3	5
2	Resin	32	0	10
3	Pepper	13	12	0
4	Sale of timber in Waste lands ..	1,387	8	0
	Total...	22,094	8	3

Item 4 comprises the value of reserved trees growing on lands sold under the Waste Land Rules as well as taken up for dry or wet cultivation, also the sums recovered on account of seignorage on trees unauthorizedly felled on Paisari (Government) lands.

I have the honor to be

Sir,

Your most obedient servant,

T. G. CLARKE,

Commissioner.

PROGRESS REPORT

OF THE

FOREST ADMINISTRATION IN COORG,

FOR

1884—85.

INTRODUCTION

The Coorg Forest Division has been under my charge during the year.

2. Sub-Assistant Conservator Mr. Muttannah was absent from Coorg from the 18th June 1884 till 25th November 1884, during which time he attended the course for Gazetted Officers at Dehra Dun. Since his return he has been engaged on the detailed examination and rough mapping of the Cardamom holdings.

CHAPTER I

AREA AND BOUNDARIES.

3. Two small additions have been made to the Reserves aggregating 700 acres. Also part of No. 6 of Devamarchi 1815 and part of the Siddapur Mallipatna block 1196, which were temporarily thrown out for coffee cultivation, have been reincluded in the State Forests. The total area is thus raised to 238 square miles.

4. A commencement has been made in marking off the boundaries of the Reserves with large stones. Twenty five large stones were prepared, out of which six have been put in their places. More would have been done, but stone cutters were in great demand for the Siddapur bridge, during the current year this work will be pushed forward.

5. As usual the demarcation lines round the eastern forests, which are 21 feet broad have all been cleared. The aggregate length of these lines is 254 miles. Twenty-nine miles of demarcation line along the Ghat Forest have also been cleared and stone cairns erected at intervals along it.

6. A detailed statement is appended showing the length and cost of lines cleared.

Name of Forest.	Miles.	Amount.		
		Rs.	A.	P.
Ghat forest	29	160	8	0
Nalkeri	21	112	12	8
Hutgut	16½	43	0	0
Mawkal	31¼	114	2	8
Arkeri	21¾	71	6	8
Karmad	13	70	9	4
Maldare	18¼	55	1	4
Dubare	22½	67	1	4
Kootompole	12	168	8	0
Anekadu	39	58	3	4
Herikere	9	36	14	8
Yedovanad	26	62	12	0
Gangwara	2¾	8	10	0
Yelsavirashime	21	51	8	0
	283	1,081	2	0
25 Demarcation numbered stones ...	...	56	4	0
Grand Total.....	283	1,137	6	0

CHAPTER II.

Surveys, Working Plans, and Annual Plans of Operations.

7. *Surveys.*—It was not found possible to complete the survey of the Ghaut Forests. There are still about 6 miles to be finished in North Coorg, and the work done by native surveyors to be revised. Mr. Morrell's work has not been all checked in Madras. Some of it may have to be revised. When this is known, the work will be again taken up and completed.

8. The teak plantations at Kootompole were surveyed and mapped by Mr. Morrell.

9. That gentleman has been engaged in the levelling of a trace for the projected tramway from Hunsur to Nagaraholay. This work is still going on. When the trace is laid down and surveyed it is intended to make a road along it.

10. *Working Plans.*—The time and attention of the officers and establishment was too much taken up with other things to admit of carrying out the lengthy operations necessary for drawing up working Plans. Since the close of the year however the matter has been taken in hand. More time will be given to this work in future as plantation work in the South Eastern forests has been eased off.

11 Working Plans are more immediately necessary for Nalkery and Hutgutnad, the principal teak forests in Coorg, and those which it is of importance to work up to their yield. It is therefore in those forests in which operations have been begun.

12. The plan adopted is to cut straight lines through the forests from end to end, five chains broad, and enumerate and measure the trees in sections of one mile. General observations are made of the height of the different species in the section. The measurements are put down in classes as follows :—

Column 1. Saplings from 1' to '3' Column 2. 3' to 5' in girth, and so on, each taking 2 feet of girth. It is however intended to have compasses made, by which to measure the diameter which will be a simpler operation. Opposite to the measurments, a diagram of the section is drawn on which is shewn the changes of forest growth with a brief description, and the distance on each side of the line to which forest of similar nature extends. The compilation of a series of such lines will render the mapping out of the blocks into parcels of similar forest growth an easy matter. The work too admits of being checked at any time.

13. The Plan of operations for the year was worked up to. One for the current year has been drawn up.

CHAPTER III.

Protection and Improvement.

(1.) *Establishments.*

14. No alteration has been made in the strength of the establishment. As a make shift temporary men have been put in. The proposals for an increase have however lately been resubmitted.

(2.) *General Protection and Breaches of Forest Law.*

15. The breaches of Forest Law were not numerous. Those which were brought to book were trespass and petty theft. Several cases of damage done to Sandalwood were compounded by payment of damages.

16. The trial of the North Coorg Rangers' Office Mutsaddi resulted in his imprisonment for 4½ years with a fine of Rs. 1,000.

(2.) *Forest Fires.*

17. It was again a trying year for fires, and there were serious fires in the South Eastern forests. The three largest occurred quite early in the season, at the end of February, and were due to the carelessness of the guards superintending the firing of the lines from which the fires escaped. The Foresters were also much to blame in not looking after the men. These fires burnt 9,450 acres. The largest was in Nalkery 7160 acres, the permanent Forester of that forest was away owing to severe illness, and his locum tenens is to blame for not seeing that the lines were carefully burnt. Another large fire occurred in the middle of March in Arkery and originated in the forest. The Forester allowed it to burn for two days before he got it completely out. This was gross carelessness as it is easy to ensure a fire not breaking out the 2nd day, if all burning pieces on the edge are extinguished or isolated. These three Foresters were fined and warned.

18. No fires occurred in Yedivanad, Anecadu, Dubare and Devamarchi except small ones in Dubare and Anekadu which were promptly put out. Their immunity was principally due to early rains, which fell heavily in the middle of March.

19. A promising feature of the year is that there were somewhat fewer unexplained fires and that although the area burnt was considerable, fires were less numerous, which would seem to shew that the jungle men are becoming less mischievous. There were still some cases which can only be put down to mischief, but there is some hope that such cases will become fewer every year.

20. From form No. 51 it will be seen that 1,24,291 acres attempted, 1,12,485 acres were successfully protected or 90 per cent. The cost of protection has again increased, being Rs. 3170, or Rs. 18 per square mile. This increase is due to the widening of many of the lines, and to the increase to the number of fire guards.

21. The area of forest unburnt though not protected in Coorg is very considerable, as it comprises the whole of the ever-green forests on the western Ghauts which measure about 349 square miles.

(4.) *Grazing and Fencing.*

22. The grazing of the Yelsavirshime Forests, part of Dubare and Anekadu was let out to keep away trespassers.

23. The amount obtained for grazing leases was as follows :—

	Rs.	A.	P.
Yelsavirshime	40	0	0
Anekadu	50	0	0
Mercara Fuel Reserve	6	11	2
Nalkeri	20	0	0
Mawkal	20	0	0
Gangwara	...	8	0
From Gowligars	65	0	0
Total Rupees.....	202	8	2

24. The list of ryot's cattle grazing in the forests was revised by the Taluk officials, but the numbers are still unconscionably large, and still insufficient account is taken of the large areas of bane and uradive allowed to the ryots for the express purpose of grazing. The matter cannot be satisfactorily dealt with by any other than a Settlement officer. Certainly the list as it stands cannot be accepted.

25. The matter of the grazing of the Amrut Mahal cattle, and cattle of the Madras Commissariat has been enquired into during the year. These cattle have been grazed yearly in the Coorg Forests for 80 years. Permission was first obtained from the Coorg Rajah in 1814.

The number sent in is not well determined, but it appears to be about 6000, of which 4000 belong to the Amrut Mahal, and 2000 to the Madras Commissariat.

These cattle are sent in April or May, and graze for 3 or 4 months in Coorg till the grass grows in their grazing grounds in Mysore.

They are sent yearly to the same parts of the forest, and the damage done to the portions thus constantly grazed over is very considerable. Propositions were made that this yearly invasion should cease, but it is stated by the Officers in charge that the grazing is indispensable to the herds. It was then proposed that payment should be made to compensate the forests for the damage done to them. The matter is however still undecided. No doubt every thing must be done to keep up this fine breed of cattle, but not at the expense of valuable forests, like those along the eastern borders of Coorg.

26. This matter will have to be carefully watched. Fuller details regarding the routes taken by the cattle, the length of time each camp is used, and so on. Then if possible a scheme for rotation of grazing may be inaugurated. At present little is known about the matter by the Forest Establishment, because the portions grazed over are generally somewhat remote from the Forester's stations. It was not until the question was gone into last year that it became known what large proportions it has assumed neither have complete data been obtainable from the officer in charge of the cattle.

(5) *Natural Reproduction.*

27. With the most careful observation, it is difficult to say whether the reproduction of a particular year is good or bad, because seedlings are not readily seen till they get above the long grass. Where the cover is complete overhead, or even anything like complete, teak seedlings are never found, but in such places in the teak zone, teak saplings and trees of middle age generally form a good percentage of the stock. Honne (*Pterocarpus*) and Beet (*Dalbergia*) seedlings are often found under their cover.

28. The seeding of teak was below the average in the southern forests owing it is thought to the long continued drought. In the dryer and open forests of North Coorg it was much better. Honne and Blackwood seeded fairly well in all the forests.

29. To aid teak seedlings some small areas in Nalkeri and Anecadu, about 200 acres in each, were treated by weeding out the soft species dominating the teak. As felling operations become regulated it will be proper that the area in which fellings take place should be treated at the same time by the kind of weeding alluded to above. Teak saplings were freed out as well as the seedlings. The work was not however thoroughly done.

30. The common small bamboo (*Dendrocalamus strictus*) seeded over considerable area. Patches of 100 acres on the hill sides seeded and died off entirely. As a rule this species of bamboos seeds by isolated clumps. The phenomenon above described was quite unexpected. It is perhaps due to exceptional seasons. The heavy monsoons of 1882 and 83 with the long drought of 1884. It will be interesting to see if the seeding spreads generally this year.

(6) *Artificial Reproduction.*

31. The teak plantations were enlarged by 134 acres the sandal by 24 acres.

The area now planted is :—

Teak 563 acres	Sandal 301 acres	Fuel 85 acres.

32. The teak plantations at Kootompolle are doing very well, they measure now 231 acres. An invasion of caterpillars after last monsoon did much damage. They appeared in crowds (8 or 10 different kinds) and devoured not only all the leaves but the top shoots too in some cases. This plague retarded the growth of the trees somewhat. It is probably attributable to the surface of the soil being too clean of weeds and jungle vegetation, so that there was nothing else but the teak for the

caterpillars to eat. This theory is borne out by the fact that the old plantations where the weeds are allowed to grow did not suffer.

33. Mr. Tod the contractor died last year. The plantations have since the 1st April been placed under a European Superintendent on Rs. 100 per mensem. It is intended that he shall be employed in looking after the neighbouring forests as well as the plantations. The arrangement is sanctioned for 3 years.

34. The work in Karmad was confined to rough weeding in lines to keep down bamboos and fast growing soft woods.

35. At Tittimatti a clearing of 18 acres was successfully planted.

36. The Anekadu plantation was enlarged by 8 acres making it 40 acres. The plantation is coming on very well. It will not be enlarged this year, but some land where firewood cuttings have been carried on is to be planted without enclosure, thorns being put round the plants.

37. No new clearings have been made for teak except at Kutampole, where 45 acres are ready for planting. Therefore only small nurseries have been made except at Anekadu and Kutampole.

38. The cost per acre of teak plantation is Rs. 105, up to date.

Sandal Plantations.

39. New clearings were made at Gangwara, Fraserpet, Kargodu, Yarrekolly, and Tittimatti and all the older plantations were supplied up. Shade was protected and regulated.

40. About 23 acres of land at Tittimatti, Maldare and Gangwara has been got ready to stock during the coming monsoon.

41. On the whole the plantations have been worked well, and within the estimated cost put down in the working plan. Expenditure was tabulated every month, and the totals kept in view so that no plantation should exceed its allowance. The average cost for new work was Rs. 26—3—3 per acre, and for old work Rs. 15-14-1 per acre. The figures last year were Rs. 49 and 15 respectively. It should be noted however that the new plantings are on open land which require little clearing to make it ready to be stocked.

(7) *Cutting of Creepers.*

42. This work was carried on simultaneously with the freeing out of teak mentioned in para 29. Sufficient attention is not yet given to this important work by the Forest Establishment.

(8) *Experiments and Exotics.*

43. The Ceara plants at Kutompole look healthy, but do not continue to grow with the rapidity they at first gave promise of.

44. The Cocoa plants are doing fairly well, but they seem to require shade.

45. Nine thousand two hundred and sixty-nine plants of cinchona were planted out in Mercara of which 6,749 were succerubra 1,950 condaminea, and 570 ledgereana. The growth during the year of the older plants has not been good. This may be due to want of cultivation, but it was never intended to cultivate them, but to see how they would grow left to themselves.

46. Mr. Gannie the Superintendent of the Sikkim Garden obligingly forwarded a packet of ledgereana seed, which has been sown, and is beginning to germinate.

47. The Java fig and Kigelia Pinuata plants continue to do fairly well. The Syncarpia Laurifolia plants were too weakly to put out and were kept in the Nursery and will have to be put out now.

48. A few small silos were made in the Mercara Fuel Reserve in September. Heavy rain fell on them while they were being made. One was opened 2½ months

after being closed. The ensilage had a very pungent smell something like that of a tan pit. Cattle would not eat it. The smell remained for several weeks. Another pit was opened seven months after being closed. The ensilage from it had a similar smell, but not nearly so pungent. Unfortunately very heavy rain fell when it was opened and made the stuff so sodden that it was impossible to give it to cattle. The experiment will be repeated this year, a light roof being erected over the pit.

49. Appended is the Register of rain-fall at Forest Stations. The rainfall was about the average.

Register of rainfall at forest stations in Coorg during 1884—85.

Months.	Fraserpet.		Dubare.		Gangwara.		Tittimatti.		Karmad.		Nalkeri.	
April 1884	...	20	..	...	...	...	1	20	1	40	3	15
May "	2	50	...	...	2	35	...	70	3	80	1	65
June "	2	88	...	...	1	60	...	50	3	5	2	75
July "	3	36	4	60	6	78	7	80	12	75	10	40
August "	6	55	10	95	8	70	12	35	9	95	12	70
September "	1	53	1	95	2	40	2	15	4	20	3	85
October "	9	44	9	60	...	...	6	65	5	25	4	5
November "	2	58	6	...	3	70	4	50	4	35	1	15
December "	...	...	...	...	...	...	...	...	...	...	...	...
January 1885	...	...	...	...	...	...	...	...	...	...	...	...
February 1885	...	...	...	...	...	...	...	...	...	...	...	...
March 1885	...	92	1	60	...	...	1	10	...	...	...	..
Total.....	29	96	34	70	25	53	36	95	44	75	39	70

(9) *Communications and Buildings.*

50. The Aramanebane-Nagarahole road was somewhat improved and the formation completed in the middle.

The Tittimatti-Nittoor road is still left in the Department's care, the Local Funds not having moved in the matter. Parts of it are getting in such bad repair that some money will have soon to be spent on it.

51. The new road traced through Arikery was roughly formed for a distance of 6 miles, and the trace has been carried on south of the Lakshmantirta river through Hutgut Reserve and joined to the Nagarahole-Morkal road about 1½ miles from Morkal.

52. As stated in para 9 a road is to be made from Nagarahole to Hunsur along the tramway trace. In some parts it will be made at steeper gradients than the tramway trace, and will therefore be shorter.

53. The road from Maldare to Dubare was drained and improved for 3 miles from Maldare to facilitate the extraction of bamboos.

54. A track was opened from Kargode in Yelsavirshime to join a track in Mysore country going to Arakalgode. By this means Arakalgode, where a new depot has been formed, is reached in 12 miles intstead of in 22 miles by the road going past Kodlipett.

55. Small sums were spent on the upkeep of other carts tracks. The total expenditure on roads was distributed as follows—

Nalkery-Hunsur, &c	63	6	4
Hutgutnad Forest	43	2	8
Dubare "	89	12	0
Arkere "	91	0	0
Maldare "	176	9	4
Tittimatti-Maldare "	83	6	8
Do Mawkal "	73	3	8
Karmad-Nagarahole "	62	5	4
Yedevanad	2	8	0
Anecadu	12	15	0
Kargode	25	5	4
Yelsavirshime	13	0	0
Mercara-Paramboo Cadu Rajsari	23	12	0
Total Rupees.....	760	6	4

56. The Kargode lodge was completed, and is a most useful building, very much simplifying the inspection of work in Yelsavirshime.

57. Sanction was obtained to build a bungalow an Kutompole which is very much wanted. Materials are being collected so that it may be built before the hot weather comes on.

58. Old buildings were thatched and repaired. The cost on buildings was destributed as follows—

No.	Names.	Amount.		
1	Nagarahole Bungalow...	47	1	4
2	Aramanebane	17	6	2
3	Karmad	9	12	0
4	Tittimatti	18	10	8
5	Maldare	45	14	8
6	Dubare	203	10	8
7	Arkeri	5	12	0
8	Kutgutnad	21	14	8
9	Kutompolle	101	0	0
10	Herikere	4	12	0
11	Fraserpett	1	0	0
12	Ramaswami Kanve	19	7	4
13	Anecadu Yarre Colly	11	15	6
14	Yedevanad	6	0	0
15	Mercara	22	7	0
16	Kargode	408	8	8
17	Gangwara	6	2	0
	Total Rs.....	951	6	8

CHAPTER IV

YIELD AND WORKING.

(1.) *Departmental Operations.*

59. The number of trees felled was 1501 yielding 2554 logs aggregating 54,895 cubic-feet.

60. The amount of timber removed to Depot was 2256 logs measuring 46,988 cubic feet.

61. In the following statement the amount of timber and bamboos cut in each forest, the locality, and approximate area, over which felling took place are shewn.

Name of Forest.	Locality.	Area.	Description of Wood.	Quantity. No.	Quantity. C. ft.
Nalkeri ...	Doddalla	400	Teak	665	14,501
			Honne	27	664
			Other wood	10	201
Devamarchi ...	Ma'dare	50	Teak	15	360
			Honne	23	486
			Other wood	21	529
			Other wood poles ...	136	...
			Bamboos	5,500	...
Arkeri ...	Mattigode	200	Teak	73	1,390
			Honne	158	3,123
			Other wood	25	346
			Do poles	582	...
Mawkal ...	Balumani Majjigehalla ...	...	Teak	16	404
			Honne	50	1,057
			Other wood	18	322
			Do poles... ...	606	...
			Bamboos	45,200	...
Hutgunad ...	Kalhalla	100	Teak	135	4,584
			Honne	11	335
			Other wood	26	606
			Other wood poles ..	8	...
Dubare ...	Amalle	100	Teak	17	383
			Honne	142	3,114
			Other wood	16	456
			Do poles	6	...
			Bamboos	24,900	...
Anekadu ...	Sunadakal	50	Teak	255	3,693
			Honne ...	33	1,159
			Other wood	21	447
			Teak poles	35	...
			Firewood	1,342	...
			Bamboos	39,108	...
Yedevanad ...	Siddeshwaranagooda, and Hamamanti, Haravatti Bail Jodu Handimavadavi in Gadihad.	...	Teak	135	2,801
			Honne	192	4,342
			Other wood	245	7,604
			Teak poles	163	...
			Other wood poles ...	77	...
			Bamboos	1,226	...
Ganagur ...	Genebetta	70	Honne	34	550
			Other wood	91	1,488
			Grand Total.....	1,21,533	54,895
	Abstract.....		Teak	1,311	28,116
			Honne	670	14,780
			Other wood	573	11,999
			Teak poles	198	...
			Other wood poles ...	1,505	..
			Firewood	1,342	...
			Bamboos	1,15,934	...
			Total.....	1,21,533	54,895

62. All trees were marked to fell either by the Divisional officer, his Assistant, or the Ranger. A few cases occurred of unmarked trees being felled, for which penalties were inflicted. By working on this system only over mature will be felled in future.

63. The value of the work done by Government Bullocks was Rs. 889—1—9 against an expenditure of Rs. 943—4—5. A statement will be found in the appendix shewing the details of work done and the expenditure.

Statement shewing the work done by Government Bullocks during the year 1884—85.

Description of Work.	Work done in 1884—85. Quantity. No.	Quantity. C. ft.	Amount.			Items.	Feed and Cost.		
Logs from Anekadu to Fraserpet ...	97	1,271	155	8	0	Gram ...	292	12	1
Bamboos from Do to do ...	8,300	...	111	0	0	Grass ...	200	10	8
Bamboos from Do to Bakka...	7,100	...	61	8	0	Shoeing ...	31	0	0
Firewood from Kudlur Bakka to Distillery.	76	Cart loads.	40	0	0	Sundries ...	53	8	9
						Repair of carts ...	38	5	0
Bamboos from Bakka to Mercara ...	850	...	25	8	0				
Logs from Yedivanad to Fraserpet ...	75	772	138	6	0	Pay of drivers ...	326	15	11
Logs from Dubari to Avartj ...	57	304	52	3	9	Total Rs.....	943	4	5
Logs from Attoor to Mercara ...	8	178	44	8	0				
Bamboos from Bakka to Fraserpet ...	1,057	...	10	8	0				
Other sundry works	...	...	250	0	0				
Total.....	17,620	2,525	889	1	9				

64. The number of bamboos brought to depot was 36,249 against 25,415 last year. The number of bamboos sold from depot was 38,457 against 33,379.

The amount realized thereby was Rs. 872—15—3 and by bamboos sold in the forest Rs. 2,000—11—8 as compared with Rs. 879—6—7 and Rs. 1,542—4—10.

65. One thousand seven-hundred eighty-nine cart loads of firewood were delivered to the Fraserpet Distillery as compared with 911 last year.

66. Seventy two and a quarter tons of sandlewood were collected at a cost of Rs. 2,075 or Rs. 28—11—6 per ton as compared with 74½ tons last year. According to estimate 100 tons should have been collected, but this was not possible owing to the Contractor failing to perform his contract. The work was taken up Departmentally in the middle of the season. It is found to be so much more satisfactory to collect Departmentally that contracts will not be given in future. All trees to be uprooted are marked either by the Divisional Officer, his Assistant, or the Ranger, so that only fully mature trees are exploited. It is found that the contractor left all small hollow trees standing because they did not pay him so well as the large trees. All these are now being brought to sale.

(2) *Removal of produce by purchasers from Reserved forests.*

67. The quantity of produce removed by Purchasers was as follows :—

Name of Forest.	Description	Quantity. No.	Quantity. C. feet.
Mawkal	Honne trees	4	...
	Other wood	121	...
	Bamboos	65,497	...
Maldare	Honne	1	...
	Other wood	182	...
	Other wood poles	6	...
	Bamboos	44,862	...
Halekere	Other wood	24	...
	Bamboos	20,462	...
Anecadu	Other wood	33	...
	Bamboos	4,080	...
Yelsavirshime	Do	5,580	...
Yedevanad	Do	6,609	...
Tittimatti	Teak trees	3	...
	Honne	45	...
	Other wood	34	...
	Bamboos	35,887	...
Jainkal	Other wood	3	...
	Bamboos	500	...
Near Colly...	Other wood trees	5	...
Gangwara	Bamboos	1,199	...
	Total	185,137	...
	ABSTRACT.		
	Teak	8	...
	Honne	50	...
	Other wood	402	...
	Other wood poles	6	...
	Bamboos	184,676	...
	Total.....	185,137	...

68. The increase in the sale of bamboos from forests is again satisfactory being nearly 28 per cent more than in the preceding year. Looking to the large tracts of forest almost monopolized by bamboos, and also to the fact that the small bamboo (D. strictus) has begun to die out in the hilly tracts, it was determined to reduce the price per thousand from Rs. 15 to Rs. 7—8—0 and sell as many from the places where they were dying out as possible. The reduction took place on the 1st January 1885.

69. The result was that 108,982 bamboos were sold during January February, and March, against 69,560 bamboos during the same period of the previous year.

70. The quantity of trees removed from unreserved Government jungle on payment was :—

11	Teak trees	210	0	0
3	Honne trees	18	0	0
5	Beeti trees	25	0	0
1	Hebbalasu	10	0	0
17	Nandi trees	76	8	0
25	Other wood trees	39	8	0
62	Total.....	379	0	0

71. The question regarding the supply of fuel to the Town of Mercara having been brought forward by the Commissioner, the Chief Commissioner in his Proceedings No. 111 dated 24th April 1884, issued orders that firewood cut on Paisari lands and brought for sale to the town of Mercara, should be charged at 4 annas per cart load. Accordingly, notices were issued and steps taken from July 1884 to issue licenses.

As directed by the Chief Commissioner in his proceedings No. 1234—566, dated 15th December 1884, attempts were made to lease the Paisaries around Mercara to contractors to fell and bring firewood into the town for sale at a fixed price, and notices were issued calling for tenders, only three tenders were received but they were rejected being very low, and the practice of selling firewood on licenses has therefore been continued.

72. The license shews the number of cartloads to be cut, the place in which it is to be cut and the limit of time. A temporary establishment is kept to see that the licenses are not infringed and to mark the trees to be felled.

73. From July 1884 to the end of March 1885—278 licenses were issued for firewood and Charcoal and Rs. 515—7—11 realized, besides 64 licenses issued free to bring firewood, &c. from the ryots coffee estates, Banes, &c.

74. The quantity of timber sold on lands given for coffee was as follows :—

36	Honne	216	0	0
49	Beeti	223	0	0
60	Matti	240	0	0
195	Nandi	614	8	0
5	Jack	14	0	0
5	Sampige	20	0	0
1	Hebbalasu	2	0	0
351	Total Rs.....	1,[illegible]	8	0

Free grants of Forest Produce.

75. No free grants were made from the Reserved Forests during the year.

76. The following statement shews the free grants of timber and bamboos to ryots from village forests and Paisari lands :—

Honne trees	41
Nandi	24
Matti	69
Other wood	5
Other wood poles, posts, &c	616
Do by cart loads	2
Bamboos	7,880
Total.....	8,637

77. Transports and Exports of Forest Produce.

Description.	Quantity. No.	Quantity. C. ft.	Amount.		
Teak	1,328	30,649	32,362	14	2
Honne	479	9,461	6,026	9	2
Other wood	276	4,700	2,011	7	6
Teak poles	99	...	60	4	0
Other wood poles	1,545	...	1,198	15	2
Bamboos	1,67,608	...	2,194	15	3
Alalekayi	...	...	375	0	0
Shigekayi	...	...	345	0	0
Hulichalu hudi, and Antwatadakayi	...	...	50	0	0
Horns	...	...	41	0	0
Total.....	1,71,330	44,810	44,661	1	3

78. A summary is appended, shewing the total yield of the Government Forests under all heads :—

I *a* 1,410 logs 31,903 c. ft. of ...	teak	33,131	0	0					
„ 557 „ 11,393 „ ...	honne	7,041	0	0					
„ 381 „ 6,672 „ ...	other wood	2,757	0	0					
„ 99 ...	teak poles	60	0	0					
„ 1,545 ...	other wood	1,294	0	0					
					44,283	0	0		
I *b* 1,789 ...	firewood cart loads ...	1,424	0	0					
					1,424	0	0		
I *c* 33,457 ...	bamboos	907	0	0					
					907	0	0		
II *a* 3 ...	teak	160	0	0					
„ 50 ...	honne	386	0	0					
„ 402 ...	other wood	926	0	0					
„ 6 ...	other wood poles ...	8	0	0					
					1,580	0	0		
II *c* 1,84,676 ...	bamboos	2,025	0	0					
					2,025	0	0		
II*d* Grazing and fodder grass	... ...	252	0	0					
II*e* Other minor produce	... ...	1,500	0	0					
III Confiscated drift and waif wood	... ...	451	0	0					
					2,203	0	0		
	Total Rs.....	...	0	0	52,222	0	0		

A total of Rs. 52,222 as compared with Rs. 42,788 last year. It will be seen that true forest revenue is increasing satisfactorily. Excluding the Ghat forests which were not worked during the year, the yield of the dry forest was annas 6½ per acre.

CHAPTER V.

Financial Results.

79. The Revenue and Expenditure for the last ten years has been as follows :—

	1875—76.	1876—77.	1877—78.	1878—79.	1879—80.	1880—81.	1881—82.	1882—83.	1883—84.	1884—85.
Revenue ..	107,457	75,929	1,01,015	52,020	1,01,786	87,857	1,00,364	1,38,022	87,822	1,13,233
Expenditure ...	37,679	33,328	36,267	34,828	55,165	56,487	59,858	64,782	75,022	76,952
Surplus.....	69,778	42,601	64,748	17,192	46,621	31,370	40,506	73,240	12,800	36,281

The averages for the last five years are, Revenue Rs. 105,459, Expenditure Rs. 66,585, net Revenue 38,874, as compared with those of previous five years, Revenue Rs. 87,641, Expenditure Rs. 39,453, net Revenue 48,188. It will be seen that revenue has not increased in the same proportion as expenditure. This being owing to decrease under some heads of Revenue, such as sandalwood, owing to the great fall in prices, and under Head VC owing to very little new land being taken up for coffee. On the other hand, Expenditure has increased very considerably under Head VIII Improvement, and also under Head I, owing to largely increased collections of timber.

80. The following shews the Receipts and Expenditure of the year under the three main budget Heads :—

Budget Heads.	Receipts.	Charges.
I. Timber &c. removed by Government Agency	81,281	29,540
II. Other Revenue	31,952	6,866
III. Formation, Protection &c. of Forests	...	40,546
Total Rs.. ...	1,13,233	76,952

81. The revenue was derived from the following sources :—

Number.	Budget Heads.	Amount.			Total.		
I *a.*	Timber	43,580	0	0			
b.	Firewood and Charcoal	1,415	13	0			
c.	Bamboos	887	15	3			
d.	Sandalwood	35,650	3	1			
e.	Grass and other minor produce	6	9	3	81,554	8	7
II *a.*	Timber	1,488	12	0			
b.	Firewood and charcoal	579	11	6			
c.	Bamboos	2,012	11	8			
d.	Grazing and fodder grass	201	11	2			
e.	Other minor produce	1,855	9	1			
	Cardamoms	20,707	0	3	26,845	7	8
III	Confiscated wood	450	11	0	450	11	0
V *a.*	Fines and Forfeitures...	5	0	0			
b.	Refunds	6	0	0			
c.	Other sources	4,390	14	1	4,401	14	1
	Total Rs.....	...	..	...	1,13,282	9	4

CHAPTER VI.

UNRESERVED FORESTS.

82. Under this head must be included, besides village forests and Paisaries, the Ghat forests, as these Forests although demarcated and for the most part surveyed, have not yet been Gazetted as Government Forests.

In the Ghat Forests are included the cardamom holdings, called Malés in Canarese.

The holdings are held on lease. The present leases will fall in in March next, and during the year the question has been discussed as to the terms on which the next leases shall be given. The matter is, it is believed, now before the Local Government

83. The rough mapping has been made by Mr. Muttannah of the malés in the Mercara and Padinalknad Taluks, and he has submitted the sketch map with a brief description of each malé.

84 The general opinion appears to be that the length of term of lease should be increased. Hitherto it has been 10 years for 3 terms, and 7 years for the last *i. e.* the current lease. Mr. Muttannah recommends that some of the larger malés be divided into two or more holdings.

85. *Sandalwood.*—Compensation was recovered from various persons on account of damage done to sandal trees in private lands to the amount of Rs. 57—12—0 a demand for Rs. 164 has been made for Sandalwood destroyed on two clearings made for coffee cultivation on blue land, but has not as yet been recovered.

86. This illustrates the damage done to Sandalwood by coffee cultivation. The land in question is not more than 15 acres, but was very rich in Sandalwood. As time goes on Government will have to count more and more on its plantations for the future supply of sandalwood in Coorg.

CHAPTER VII.

General Remarks.

87. The proposals for the increase of Establishment has again been submitted.

88. Mr. Muttannah Sub-Assistant Conservator has not yet received promotion. He appears to have followed the course at Dehra Dun with diligence.

89. The Forest Establishment has worked on the whole well. The Forester in charge of Nalkery was ill during the fire season, and could not be adequately replaced at the time.

90. The Office Establishment has worked satisfactorily on the whole and work has been kept up as nearly up to date as is possible with the available hands.

F. B. DICKINSON,
Deputy Conservator of Forests, Coorg.

Form No. 49.

FOREST DEPARTMENT, COORG.

Area of Reserved Forests, 1884—85.

Division.	Civil District or Territory.	Name of Forest.	Area on 1st April 1884. Acres.	Area on 1st April 1884. Equivalent in square miles.	Added during the year. Acres.	Excluded or transferred to other Heads. Acres.	Area on 31st March 1885. Acres.	Area on 31st March 1885. Equivalent in square miles.	No. and Date of Notification of additions and transfers.	Remarks.
Coorg	North Coorg ...	Kattepura ...	585	1	..	...	585	1		
		Sandalkoti ...	276	...	...	...	276	...		
		Allur ...	395	1	...	...	395	1		
		Ganagur ...	5,989	9	*300	...	6,289	10	Chief Commissioner's No. 1,690—371, dated 19th March 1885.	*Estimated.
		Yedavanad ...	6,887	11	...	...	6,887	11		
		Anekadu ...	11,507	18	...	...	11,507	18		
	South Coorg ...	Dubare ...	11,363	18	...	...	11,363	18		
		Devamachi ...	7,569	12	1,815	...	9,384	14		
		Mawkal ...	8,188	13	...	...	8,188	13		
		Arkerinad ...	17,280	27	1,196	...	18,476	29	Do No. 48—18, dated 9th April 1883.	Part of No. 6 re-included.
		Hatgatnad ...	27,520	43	...	...	27,520	43		
		Nalkeri ...	25,742	40	*400	...	26,142	40	Do No 1,690—371, dated 9th March 1885.	
	Ghat Forests ...	Urti and Kerti ..	19,200	30	...	...	19,200	30		
		Chambu and Quinad ..	6,400	10	...	...	6,400	10		
		Total.....	148,901	233	3,711	...	152,612	238		

Form No. 50.

Area of Plantations, 1884—85.

No.	Names of Plantations.	On 1st April 1884. Area. Acres.	On 1st April 1884. Cost. Rupees.	Added during 1884—85. Area. Acres.	Added during 1884—85. Cost. Rupees.	On 31st March 1885. Area. Acres.	On 31st March 1885. Cost. Rupees.	Remarks.
	REGULAR PLANTATIONS.							
1	Karmad Teak ...	189	22,505 0 0	...	576 0 0	189	23,081 0 0	
2	Kutampole " ...	134	18,664 0 0	97	8,327 0 0	231	26,991 0 0	
3	Karepura " ...	14	1,955 0 0	...	26 0 0	14	1,981 0 0	
4	Tittimatti " ...	6	358 0 0	18	517 0 0	24	875 0 0	
5	Anekadu " ..	32	1,780 0 0	8	574 0 0	40	2,354 0 0	
6	Ammale (Nalkeri) " ...	18	1,295 0 0	6	508 0 0	24	1,803 0 0	
7	Anekadu (Dubare) " ...	10	341 0 0	..	156 0 0	10	497 0 0	
8	Maldare " ...	5	155 0 0	5	297 0 0	10	452 0 0	
9	Hurlikal (Attur Forest) " .	13	571 0 0	...	247 0 0	13	818 0 0	
10	Irumani (Hatgat) " ..	8	166 0 0	...	111 0 0	8	277 0 0	
11	Mercara Fuel ...	85	8,443 0 0	...	978 0 0	85	9,421 0 0	
12	Gangavara Sandal ...	70	7,255 0 0	10	976 0 0	80	8,231 0 0	
13	Frasertpett Holageri " ...	5	866 0 0	...	15 0 0	5	881 0 0	
14	Do Gandadagundi " ...	17	6 5 0 0	6	226 0 0	23	901 0 0	
15	Herikere " ...	50	3,3 8 0 0	...	704 0 0	50	4,062 0 0	
16	Huluvur "	1	140 0 0	...	... ...	...	... ...	Abandoned, and area deducted.
17	Nagarhole (Nalkeri) " ...	12	1,810 0 0	...	324 0 0	12	2,134 0 0	
18	Balumani (Mavukal) "	22	1,485 0 0	...	272 0 0	22	1,757 0 0	
19	Dubare (Bungalow) " ...	8	555 0 0	...	125 0 0	8	660 0 0	
20	Chillikere (Dubare) " ..	6	923 0 0	...	223 0 0	6	1,146 0 0	
21	Kargodu (Malamba) " ...	10	652 0 0	2	245 0 0	12	897 0 0	
22	Benavara (Nidita) " ...	10	451 0 0	...	117 0 0	10	568 0 0	
23	Maldare (South Dubare) " ...	12	1,565 0 0	...	324 0 0	12	1,889 0 0	
24	Hurlikal (Anekadu) " ...	16	738 0 0	..	124 0 0	16	862 0 0	
25	Attur-Bakka (do) " ...	23	530 0 0	...	249 0 0	23	779 0 0	
26	Balugodu (do) " ...	...	52 0 0	...	... . .	...	... ...	Area deducted last year, and abandoned
27	Karmad (Hatgat) " ...	15	1,411 0 0	...	362 0 0	15	1,773 0 0	
28	Yarnakolli (Anekadu) " ...	1	5 0 0	3	14 0 0	4	19 0 0	
29	Bambookadu (Tittimatti) ...	...	... .	3	86 0 0	3	86 0 0	
	Total	792	79,155 0 0	158	16,703 0 0	949	95,195 0 0	
	CULTURAL OPERATIONS.							
	Frasertpet Nursery	...	170 0 0	...	40 0 0	...	210 0 0	
	Nalkeri	5	559 0 0	...	46 0 0	5	605 0 0	
	Murkal (Hatgat)	10	377 0 0	...	... .	10	377 0 0	
	Irumani (do)	5	268 0 0	...	3 0 0	5	271 0 0	
	Mavattur (Mavukal)... ...	10	119 0 0	...	... . ..	10	119 0 0	
	Sunnakal Marti (Attur) ..	8	214 0 0	...	6 0 0	8	220 0 0	
	Teak in the open (Anekadu)	...	... ...	...	7 0 0	...	7 0 0	
	Total. ...	38	1,707 0 0	...	102 0 0	38	1,809 0 0	
	Grand Total	830	80,862 0 0	158	16,805 0 0	987	97,004 0 0	
				Abstract.				
	Regular Plantations. 10 Teak plantations ..	429	47,790 0 0	134	11,339 0 0	563	59,129 0 0	
	Regular Plantations. 1 Fuel do ...	85	8,443 0 0	...	978 0 0	85	9,421 0 0	
	Regular Plantations. 18 Sandal do ..	278	22,922 0 0	24	4,386 0 0	301	26,645 0 0	
		792	79,155 0 0	158	16,703 0 0	949	95,195 0 0	
	Total of Cultural Operations	38	1,707 0 0	...	102 0 0	38	1,809 0 0	N. B. Owing to the abandonment of Huluguru and Balugodu plantations, one acre, and their cost Rs. 663 deducted.
	Grand Total	830	80,862 0 0	158	16,805 0 0	987	97,004 0 0	

Form No. 51.

FOREST DEPARTMENT, COORG.

Area of Forest Tracts protected from Fire during the dry season of 1884, *to accompany Report for* 1884—85.

Division.	Forest Tracts.	Up to 31st May 1884.		During the dry season of 1884.				Total Cost up to end of 31st May 1885.	Year in which protection commenced.	Remarks.
		Area actually protected.	Total Cost.	Area attempted to be protected.	Failures.	Actually protected.	Amount expended.			
Coorg.	Dubare	7,777	2,431	11,365	40	11,325	380	2,811	1877	
	Anekadu	11,402	3,352	11,507	17	11,490	333	3,685	1876	
	Devamachi	7,133	2,039	9,384	...	9,384	214	2,253	1878	
	Yedavanad	7,806	1,595	6,887	...	6,887	184	1,779	1878	
	Ganagur	5,768	826	5,989	160	5,829	98	924	1878	
	Nalkeri	25,316	3,214	25,742	7,160	18,582	703	3,917	1878	
	Mavukal	7,079	1,964	8,188	623	7,565	292	2,256	1878	
	Gangavara Sandal Reserve ...	70	190	85	...	85	47	237	1877	
	Arkere	15,474	449	17,280	2,290	14,990	170	619	1878	
	Hatgatnad	24,971	3,339	27,520	1,516	26,004	571	3,910	1878	
	Kutampole	134	83	231	...	231	2	85	1881	
	Fraserpet Sandal Plantation ...	20	62	28	...	28	18	80	1881	
	Mercara Fuel Reserve ...	85	21	85	..	85	148	169	1883	
	Tittimatti	...	9	...	...	...	10	19	1883	Included in Mavukal Reserve.
	Total.....	113,665	19,574	124,291	11,806	112,485	3,170	22,744	...	

Charged in previous years	18,876
Do. in 1884—85	3,185
Do. up to 31st May 1885 ...	683
Total.....	22,744

Form No. 52.

Prosecutions for breaches of Forest Rules during the year 1884—85.

Forest Division and Civil District.	Cases pending from 1883—84.	New Cases of the year.					Total cases.	Disposed of during the year.						Cases pending at the close of the year.
		Injury to Forest by fire.	Unauthorized felling or mis-appropriation of wood and minor Forest Produce.	Grazing without permission on tracts in which grazing is prohibited.	Other offences.	Total new cases of the year.		Convictions.		Acquittals.		Total.		
								Cases.	Persons.	Cases.	Persons.	Cases.	Persons.	
North Coorg ...	...	...	1	1	...	2	2	2	5	...	1	2	6	...
South Coorg ...	...	1	1	...	4	6	6	5	19	...	...	5	19	1
Mercara ...	1	...	...	...	...	...	1	1	1	...	...	1	1	...
Total.....	1	1	2	1	4	8	9	8	25	...	1	8	26	1

Form No. 53.

Summary of Revenue, 1884—85.

Budget Heads of Receipts.	Total.		
I.—Timber and other produce removed from the Forests by Government Agency:—			
a. Timber	43,367	6	0
b. Firewood and charcoal	1,365	15	0
c. Bamboos	896	11	3
d. Sandalwood	35,650	12	4
e. Grass and other minor produce	...	...	...
II.—Timber and other produce removed from the Forests by consumers or purchasers:—			
a. Timber	1,661	0	0
b. Firewood and charcoal	655	11	6
c. Bamboos	2,015	3	8
d. Grazing and fodder grass	201	11	2
e. Other minor produce	1,855	9	1
Cardamom...	20,707	0	3
III.—Confiscated drift and waif wood...	453	11	0
IV.—Revenue from Forests not managed by Government—			
a. Duty on foreign timber and other forest produce	...	...	...
b. Revenue from shared and private forests	...	...	...
V.—Miscellaneous:—			
a. Fines and forfeitures	5	0	0
b. Refunds	6	0	0
c. Other sources	4,390	14	1
Total Receipts.....	1,13,232	9	4

Form No. 53.

FOREST DEPARTMENT, COORG.

Summary of Expenditure, 1884—85.

Budget Heads.	Total.		
A.—Conservancy and Works.			
I.—Timber and other produce removed from the forests by Government agency :—			
a. Timber	13,972	0	7
b. Firewood and charcoal	862	6	4
c. Bamboos	265	8	2
d. Sandalwood	2,074	15	3
e. Grass and other minor produce	...	...	...
II.—Timber and other produce removed from the forests by consumers or purchasers	...	...	...
III.—Confiscated drift and waif-wood	...	...	...
IV.—Revenue from forests not managed by Government—			
a. Duty on foreign timber and other forest produce	...	...	...
b. Revenue from shared and private forests.	...	...	...
V.—Rent of leased forests and payments to share-holders in forests managed by Government	...	...	...
VI.—Live Stock, Stores, Tools and Plant :—			
a. Purchase of cattle	...	...	...
b. Feed and keep of cattle	943	4	5
c. Stores, tools and plant	441	10	8
VII.—Communications and Buildings :—			
a. Roads and bridges	760	6	4
b. Buildings	951	6	8
c. Other works	...	...	...
VIII.—Demarcation, improvement and extension of forests :—			
a. Demarcation	1,137	6	...
b. Compensation for land and rights	...	...	...
c. Surveys and working plans	1,894	8	9
d. Plantations	16,773	2	3
e. Protection from fire	3,185	2	10
f. Other works	37	9	8
IX.—Miscellaneous :—			
a. Refunds	293	4	0
b. Law charges	721	6	0
c. Other charges	237	2	10
Total A, Conservancy and Works.....	44,551	4	9
B.—Establishments.			
I.—Salaries :—			
a. Conservators	...	...	...
b. Superior Officers	12,003	5	4
c. Subordinate Forest and Depôt Establishments	11,052	6	7
d. Office Establishments	3,024	1	8
e. Deputation and Special Allowances	...	..	...
II.—Travelling Allowances :—			
a. Conservators	...	...	...
b. Superior Officers	4,283	3	7
c. Subordinate Forest and Depôt Establishments	862	8	10
d. Office Establishments	368	11	3
III.—Contingencies :—			
a. Stationery	5	12	0
b. Carriage of Tents and Records	137	3	2
c. Rents, Rates and Taxes	...	...	...
d. Pay of Police Guards	...	...	...
e. Official Postage	346	3	0
f. Sundries	316	13	4
Total B., Establishments.....	32,400	4	9
Grand Total of Expenditure.....	76,951	9	6

W. H. EGERTON,
Assistant Comptroller General, (Forests).

Form No. 54.

FOREST DEPARTMENT, COORG.

Account Current for the year 1884—85.

Dr.							*Cr.*						
To Cash Balance ...	...	...	...	...	...	...	By Expenditure as per Form No. 53.	...	...	...	76,951	9	6
„ Revenue as per Form No. 53	...	...	...	1,13,232	9	4	„ Deposits	...	...	...	...	...	...
„ Service Funds ...	...	...	...	...	...	...	„ Forest Cash Remittances (Local).	...	...	...	...	...	...
„ Deposits ...	...	...	...	...	...	...	Remittances to Treasuries ...	1,11,370	9	7	..	...	...
„ Forest Cash Remittances (Local).	...	...	...	...	...	...	Inter Divisional Transfers ...	...	...	...	...	...	...
Forest Cheques drawn ...	75,579	0	7	...	...	...					1,11,370	9	7
Inter Divisional Transfers ...	1,271	7	11	...	...	...	„ Advances Recoverable ...	...	...	...	35,898	15	5
				76,850	8	6	„ Suspense ...	...	...	...	...	...	...
„ Advances Recoverable ...	...	...	...	35,892	7	5	„ Account Current (other Governments.	...	...	...	...	...	...
„ Suspense ...	...	...	...	...	...	...	„ Inter Departmental Transfers ...	..	...	...	1,861	15	9
„ Account Current (other Governments).	...	...	...	1	5	0	„ Cash Balance ...	...	..	...	...	...	..
„ Inter Departmental Transfers ...	...	...	...	106	4	0							
	Total Rs ...			2,26,083	2	3		Total Rs			2,26,083	2	3

Form No. 55.

Outstandings and Liabilities on account of Contractors and Disbursers for 1884—85.

Division.	Department Debtor.									Department Creditor.									Balance due.						Remarks.
	At commencement of year.			Recoveries in Cash and Value of supplies and work done during the year.			At close of year.			At commencement of year.			Payments made during year.			At close of year.			To Department (Outstandings).			By Department (Liabilities).			
Coorg Forest Division...	...	...	...	35,892	7	5	35,892	7	5	1	0	0	35,898	15	5	35,899	15	5	7	8	0	...	...	...	
Total.....	...	...	...	35,892	7	5	35,892	7	5	1	0	0	35,898	15	5	35,899	15	5	7	8	0	...	...	...	

Form No. 56.

Revenue received and Outstandings on account of Revenue during 1884—85.

Division.	Particulars.	Outstandings at commencement of year.			Value of Sales and other Revenue during year.			Total.			Amount realized during year.			Balance due to the Department at end of year.			Remarks.
Coorg Forest Division	Timber and other produce, &c	8,724	10	1	1,14,229	0	6	1,22,953	10	7	*1,15,144	11	2	7,808	15	5	* Amount realized as per Annual Summary (Form No 53) 1,13,232 9 4 Amount written off as per Chief Commissioner's No. 1519—330, dated 31st January 1885 ... 50 0 0 Do No. 308—58, dated 15th May 1885 ... 1,862 1 10 Total Rs .....1,15,144 11 2 From private purchasers.
	Total.....	8,724	10	1	1,14,229	0	6	1,22,953	10	7	1,15,144	11	2	7,808	15	5	

CALCUTTA,
The 188

W. H. EGERTON,
Assistant Comptroller General, (Forests).

Form No. 57.

FOREST DEPARTMENT, COORG.

Financial Results of the year 1884—85.

Division.	Timber and other produce removed from the forests by Government Agency.		Other Revenue.		Formation, protection and improvement of Forests.	Total.		Remarks.
	Receipts.	Charges.	Receipts.	Charges.		Receipts.	Charges.	
Coorg	81,281	29,540	31,952	6,866	40,546	1,13,233	76,952	

Form No. 58.

Trees felled by Government Agency during the year 1884—85.

Division.	Trees felled.		Remarks.
	Description of Wood.	Number or Quantity.	
Nalkere	Teak	260	
	Honne	14	
	Other wood	8	
	Total.....	282	
Mukkare	Teak	10	
	Honne	14	
	Other wood	15	
	Total.....	39	
Arkeri	Teak	49	
	Honne	114	
	Other wood	17	
	Total.....	180	
Mavukal	Teak	10	
	Honne	36	
	Other wood	12	
	Total.....	58	
Hatgatnad	Teak	60	
	Honne	7	
	Other wood	14	
	Total.....	81	
Dubare	Teak	12	
	Honne	58	
	Other wood	8	
	Total.....	78	
Anekadu	Teak	173	
	Honne	24	
	Other wood	18	
	Total.....	215	
Yedavanad	Teak	84	
	Honne	148	
	Other wood	236	
	Total.....	468	
Gangur	Honne	32	
	Other wood	68	
	Total.....	100	
	Grand Total Trees.....	1,501	
	Abstract.		
	Teak	658	
	Honne	447	
	Other wood	396	
	Total Trees.....	1,501	

Form No. 59.

FOREST DEPARTMENT, COORG.

Out-turn of Timber and other Produce cut and collected by Government Agency during the year 1884-85.

Division.	Produce cut and collected.				Remarks.
	How obtained.	Description.	Number or Quantity.	Cubic feet.	
Nalkeri ...	Selection Fellings.	Teak ...	665	14,501	
		Honne ...	27	664	
		Other wood ...	10	201	
		Total.....	702	15,366	
Makkare ...	...	Teak ...	15	360	
		Honne ...	23	436	
		Other wood ...	21	529	
		Other wood poles ...	136	...	
		Total...	195	1,325	
Arkeri ...	...	Teak ...	73	1,390	
		Honne ...	158	3,123	
		Other wood ...	25	346	
		Other wood poles ...	582	...	
		Total...	838	4,859	
Mavullil ...	...	Teak ...	16	404	
		Honne ...	50	1,057	
		Other wood ...	18	322	
		Other wood poles	696	...	
		Total...	780	1,783	
Hatgatnad ...	...	Teak ...	135	4,584	
		Honne ...	11	335	
		Other wood ...	26	606	
		Other wood poles ...	8	...	
		Total...	180	5,525	
Dubaré ...	...	Teak ...	17	383	
		Honne ...	142	3,114	
		Other wood ..	16	456	
		Other wood poles ...	6	...	
		Total.....	181	3,953	
Anekadu ...	...	Teak ...	255	3,693	
		Honne ...	33	1,159	
		Other wood ...	21	447	
		Teak poles... ...	35	...	
		Firewood	1,342	...	
		Bamboos	39,108	...	
		Total...	40,794	5,299	
Yedavnad ...	...	Teak ...	135	2,801	
		Honne ...	192	4,342	
		Other wood ...	345	7,604	
		Teak poles ...	163	...	
		Other wood poles ...	77	...	
		Bamboos	1,226	...	
		Total.....	2,138	14,747	
Ganagur ...	...	Honne ...	34	550	
		Other wood ...	91	1,488	
		Total...	125	2,038	
		Grand Total...	45,933	54,895	
	Abstract ...	Teak ...	1,311	28,116	
		Honne ...	670	14,780	
		Other wood ...	573	11,999	
		Teak poles ...	198	...	
		Other wood poles ...	1,505	...	
		Firewood	1,342	...	
		Bamboos	40,334	...	
		Total.....	45,933	54,895	

Form No. 60.

OREST DEPARTMENT, COORG.

Timber and other Produce received from Forests in Sale Depôts during the year 1884—85.

Division.	Depôt or Locality.	Produce received. Description.	Number or Quantity.	Cubic feet.	Remarks
Coorg.	Hunsur	Teak	855	22,670	
		Honne	332	5,373	
		Other wood	109	1,989	
		Total ...	1,296	30,032	
	Fraserpet	Teak	226	3,722	
		Honne	155	2,835	
		Other wood	379	7,142	
		Teak poles	83	...	
		Other wood poles	167	...	
		Bamboos	16,954	...	
		Total.....	17,964	13,699	
	Avarti	Teak	15	358	
		Honne	3	71	
		Other wood	7	148	
		Total.....	25	577	
	Tittimatti ...	Honne	11	187	
		Other wood	6	77	
		Other wood poles	1,363	...	
		Total.....	1,380	264	
	Kosarakalli ...	Honne	36	311	
		Total.....	36	311	
	Bakka ...	Bamboos	19,295	...	
		Total.....	19,295	...	
	Mercara ...	Honne	46	951	
		Other wood	4	103	
		Total.....	50	1,054	
	Arakalgodu ..	Honne	24	378	
		Other wood	48	673	
		Total.....	72	1,051	
	Firewood ..	Firewood	1,346	...	
		Total.....	1,346	...	
		Grand Total.....	41,464	46,988	
		Abstract.			
		Teak	1,096	26,750	
		Honne	607	10,106	
		Other wood	553	10,132	
		Teak poles	83	...	
		Other wood poles	1,530	...	
		Bamboos	36,249	...	
		Firewood	1,346	...	
		Total.....	41,464	46,988	

Form No. 60.—*Concluded.*

Division.	Depôt or Locality.	Produce received. Description.	Number or Quantity.	Cubic feet.	Remarks.
Coorg.	Fraserpet Sandalkoti. ...	Good wood	43½	Tons.	
		Inferior wood	28½	do	
		Total.....	72½	Tons.	

Form No. 61

FOREST DEPARTMENT, COORG.

Sales of Timber and other Produce cut and collected by Government Agency during the year 1884—85.

Depôt or Locality.	Produce sold. Description.	Number or Quantity.	Cubic feet.	Remarks.
Hunsur	Teak	1,050	26,110	
	Honne	219	4,996	
	Other wood	62	1,153	
	Total.....	1,331	32,259	
Fraserpet	Teak	221	3,125	
	Honne	264	5,146	
	Other wood	194	1,598	
	Teak poles	99	...	
	Other wood poles	180	...	
	Bamboos	15,449	...	
	Total.....	16,407	11,869	
Avati	Teak	87	1,814	
	Honne	26	386	
	Other wood	30	428	
	Total.....	143	2,628	
Tittimatti	Teak	36	548	
	Honne	22	338	
	Other wood	16	198	
	Other wood poles	1,352	...	
	Total...	1,426	1,084	
Kisarahalli	Honne	36	311	
	Total.....	36	311	
Bakka	Firewood	6	...	
	Bamboos	18,008	...	
	Total.....	18,014	...	
Mercara	Teak	7	211	
	Honne	10	216	
	Other wood	39	772	
	Total.....	56	1,199	
Firewood	Fire wood	1,783	...	
	Total.....	1,783	...	
	Grand Total.....	39,196	49,350	
	Locally Sold.			
Mattigodu	Teak	9	95	
	Other wood	40	523	
	Other wood poles.....	13	...	
	Total.....	62	618	
	Abstract.			
	Teak	1,401	31,808	
	Honne	577	11,398	
	Other wood	341	6,149	
	Teak poles	99	...	
	Other wood poles	1,532	...	
	Firewood	1,789	...	
	Bamboos	33,457	...	
	Total.....	39,196	49,350	
	Sold Locally.			
	Teak	9	95	
	Other wood	40	523	
	Other wood poles	13	...	
	Total.....	62	618	

Form No. 61.—*Concluded.*

FOREST DEPARTMENT. COORG.

Sales of Timber and other Produce cut and collected by Government Agency during the year 1884-85.

Division.	Depôt or Locality.	Produce sold.			Remarks.
		Description	Number or Quantity.	C. ft.	
Coorg. ...	Fraserpet-Sandalkoti ...	Good wood	65½	Tons.	
		Inferior wood	53½	"	
		Total.....	118½	Tons.	

Form No. 62.

Account of Timber and other Produce cut or collected by Government Agency and brought to Sale Depôts or sold locally during the year 1884—85.

Particulars.	No. or Quantity.	Cubic ft.	Total of each Head. No. or Quantity.	Total of each Head. C. ft.	Particulars.	No. or Quantity.	Cubic ft.	Total of each Head. No. or Quantity.	Total of each Head. C. ft.
Balance at the commencement of the year—					Removed by purchasers from Sale Depôts—				
Teak...	674	11,428			Teak	1,401	31,[illegible]08		
Honne ...	424	7,014			Honne	577	11,393		
Other wood... ...	392	1,364			Other wood	341	6,149		
Teak poles	16	...			Teak poles ...	99	...		
Other wood poles... ...	208	...			Other wood poles ...	1,539	...		
Firewood	475		1,714	19,801	Firewood ...	1,789	...	3,950	49,350
Fire-sticks	252				Bamboos	33,457	...	1,789	...
Bamboos	650	...	727	...				3 3,457	...
			650	...				39,196	49,350
Total Balance.....			3,091	19,801					
					Sold locally—				
Received from the Forests at Sale Depôts—					Teak	9	95		
Teak...	1,096	26,750			Other wood	40	523		
Honne	607	10,106			Other wood poles ...	13	...		
Other wood... ...	553	10,132						62	618
Teak poles	83	...							
Other wood poles... ...	1,530	...			Balance at the close of the year—				
Firewood	1,346	...	3,869	46,988	Teak	369	6,365		
Bamboos	36,249	...	1,346	...	Honne	454	5,727		
			36,249	...	Other wood	604	5,347		
Received and sold locally—					Other wood poles ...	206	...		
Teak	9	95			Firewood	32	...	1,633	1,7439
Other wood	40	523			Fire-sticks	252	...	284	...
Other wood poles... ...	13	...			Bamboos	3,442	...		...
			62	618				3,442	
Total.....			44,617	67,407	Total.....			44,617	67,407
			SANDALWOOD.						
Balance that remained at the commencement of the year—					Removed by purchasers—				
Good wood	61				Good wood ...	65½			
Inferior wood	46		107		Inferior wood	53½		118½	
Received—					Remaining—				
Good wood	43½				Good wood	39½			
Inferior wood ...	28½		72½		Inferior wood	21½		60½	
Grand Total Tons.....			179½		Total Tons.....			179½	

Form No. 63.

FOREST DEPARTMENT. COORG.

Timber and other Produce cut, and collected and removed from the Forests by consumers or purchasers including Pasture during the year 1884—85.

Division.	Produce removed. Description.	Number or Quantity.	Amount of Revenue.	Amount actually realized during the year.	Remarks.
Coorg.	*IIa.*				
	Teak trees	3	60	...	
	Honne trees	50	386	...	
	Otherwood trees	402	926	...	
	Other wood poles...	6	8	..	
		461	1,380	1,489	
	IIb.				
	Firewood and Charcoal	...	656	580	
		...	656	580	
	IIc.				
	Bamboos	184,676	2,025	2,013	
		184,676	2,025	2,013	
	IId.				
	Grazing and fodder grass	...	252	202	
		...	252	202	
	IIe.				
	Other minor produce—				
	Honey wax, saffron and resin...	...	943	1,856	
	Alalekayi (Myroblans)	...	375		
	Tamarind	...	178		
	Sigekayi	...	460		
	Hullichalu Hadi, Antavaladakayi	...	50		
	Chillies, pepper, grass and comb barks &c... ...	...	5		
	Fodder	...	43		
	Horns	...	41		
		...	2,095	1,856	
	Cardamoms	...	20,927	20,707	
		...	20,927	20,707	
	III. Confiscated drift and waif wood	...	451	451	
		...	451	451	
	Total	185,137	27,786	27,298	

Form No. 64.

Revenue derived from, and Expenditure incurred on, Timber and other Produce sold to Public Works Departments from Depôt during the year 1884—85.

Name of Department.	Particulars of supplies.	Amount Supplied. No.	Amount Supplied. C. ft.	Rate. At	Rate. Per	Amount of Revenue. Due.	Amount of Revenue. Received.	Amount of Revenue. Outstandings.	Cost to Forest Department. Timber expenses under A 1	Cost to Forest Department. Quota of all other expenditure chargeable against Timber.	Cost to Forest Department. Total.	Comparison of Revenue and Expenditure. Surplus.	Comparison of Revenue and Expenditure. Deficit.	Remarks.
Public Works Department.	*Ia.* Timber.													
	Honne logs ...	106	1,970	8 to 10 Annas.	per cft.	1,064	1,064	...	534	567	1,101	...	...	
	Other wood ...	13	309	8 to 10 Annas	per cft.	174	174	...						
		119	2,279	...										
	Ic. Bamboos.													
	Bamboos ...	500	...	Rs. 20	1,000	10	10	...	10	5	15	...	...	
		500	...											
	IIa. Timber.													
	Honne trees.	34	...	...	...	230	230	..	...		..	...	...	
	Other wood trees.	38	...	...	...	384	384	..	..		...	...	...	
		72												
	Total.....	1,091	2,279	...	...	1,862	1,862	...	544	572	1,116	746	...	

Form No. 65.

FOREST DEPARTMENT, COORG.

Abstract showing the Value of Timber and other Produce at Sale Depôts for the year 1884—85.

Description of Wood and other Produce.	On hand at commencement of the year.			On hand at close of the year.			Difference.		Remarks
	No	C. ft.	Value.	No.	C. ft	Value	In favor of the year	Against the year.	
Teak	674	11,423	8,762	369	6,365	4,797			
Honne ..	424	7,014	4,240	454	5,727	4,740			
Other wood	392	1,364	3,136	604	5,247	4,832			
Teak poles ...	16	...	16	...	...				
Other wood poles	208	...	208	206	...	206			
Firewood	475		237	32	...	16			
Firesticks	252	..	...	252	..	..			
Bamboos ..	650	...		3,442	...	30			
Total ...	3,091	19,801	16,599	5,359	17,439	14,621			
Sandalwood—									
Good wood	61	Tons.	21,350	39¼	Tons.	13,659			
Inferior wood ..	46	"	1,472	21¾	"	672			
Total... ..	107	Tons.	22,822	60½	Tons.	14,331			
Grand Total	3,198	19,801	39,421	5,419½	17,439	28,952	...	10,469	

Form No. 65 *Concluded.*

FOREST DEPARTMENT, COORG.

Abstract showing the Value of Live and Dead Stock for the year 1884—85.

Description.	On hand at the commencement of the year.		On hand at the close of the year.		Difference in value		Remarks.
	No.	Value.	No.	Value.	In favor of the year.	Against the year	
Live Stock.							
Bullocks	18	740	14	367	...	...	
	18	740	14	367	...	373	
Dead Stock.							
Prismatic Compass	2	200	2	200			
Ghat Tracer	1	30	1	30			
Lifting Jacks	2	96	2	91			
Buildings	9	9,600	9	9,404			
Sheds	18	180	18	177			
Tools	1,633	1,633	1,640	1,480			
Carts	10	380	10	244			
Almirahs	6	200	7	220			
Book Shelf	1	10	1	5			
Boxes	30	120	30	115			
Tables	9	45	9	45			
Chairs	7	7	7	7			
Letter Scales	3	36	3	36			
Sandalwood Scales and Weights	2	250	2	240			
Clock	1	14	1	14			
Tents	2	500	2	400			
Rowties	3	240	3	150			
Miscellaneous	160	160	160	150			
Total.....	1,899	13,701	1,907	13,008	.	693	Owing to depreciation of stock.
Grand Total	1,917	14,441	1,921	13,375	...	1,066	

COORG DY. COMR'S. OFFICE, MERCARA.
The 23rd July 1885.

F. B. DICKINSON,
Deputy Conservator of Forests. Coorg

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